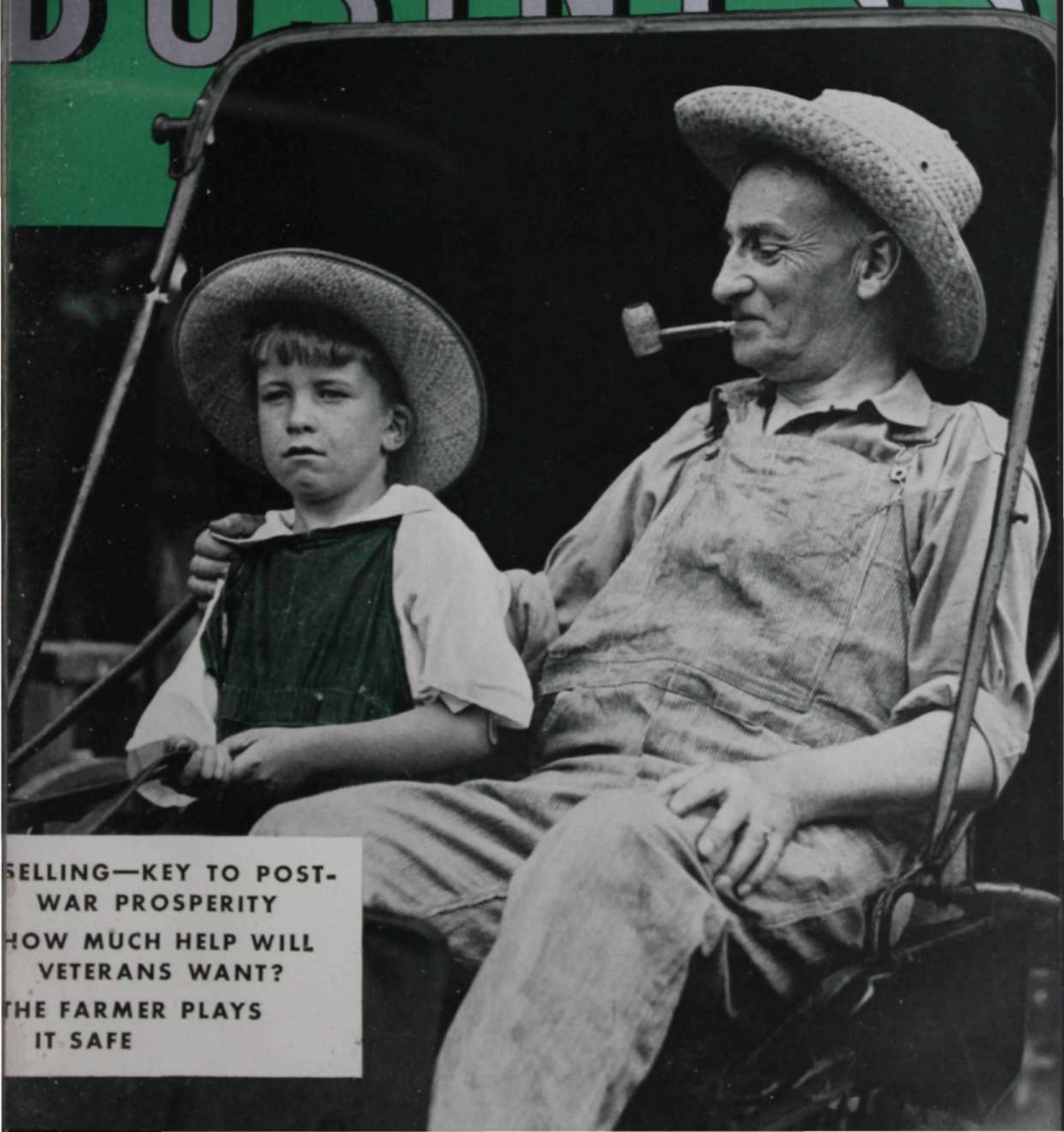


August

NATION'S

1944

BUSINESS



**SELLING—KEY TO POST-
WAR PROSPERITY**
**HOW MUCH HELP WILL
VETERANS WANT?**
**THE FARMER PLAYS
IT SAFE**



“Dis pella someting belong wuh-name?”



“What’s this?” Joe’s asking. “Paw-paw!” says the native, naming the fruit of the tropical tree.

It’s Melanesian Pidgin-English that they’re speaking, a “language” described in the War Department’s Pocket Guide to New Guinea as:

“a mixture of words from English, native tongues, Chinese, Malay, German and other languages put together with a minimum of grammar and sprinkled with the salty oaths of early sailormen.”

Joe’s pretty good at pidgin, thanks to 19 pages of common words and phrases in the Pocket Guides issued to his outfit. And it’s lucky that he is, for, as those Guides say, it’s the *custom of the country* to use Pidgin-English:

“not only between whites and natives, but also between natives who

speak . . . many different little local languages and dialects.”

That’s something new—one of many foreign customs our boys learn as war keeps them on the move.

There’s an *American* custom that’s just as new to many boys whom war keeps on the move *before* they go abroad. It’s our custom of *traveling in comfort*—which troops in training do at the rate of 30,000 every night.

The thrill of *going Pullman* is new to lots of those boys now. But no newer to them than it will be to *you* when you step aboard two *new-type cars* that Pullman

plans to operate when the war is over.

The **duplex-roomette** is one—a car in which you’ll have a completely equipped *private room* for little, if any, more than a lower berth costs now.

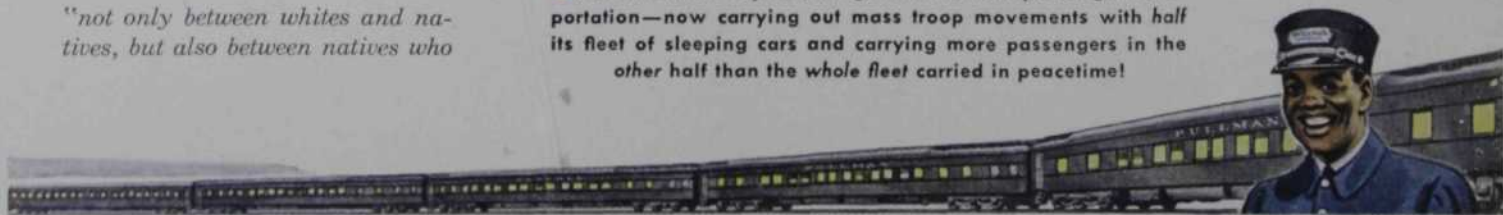
The **coach-sleeper** is the other—a car in which Pullman comfort and convenience will be yours for *less* than the present rate for a berth in either standard or tourist sleeping cars.

When Pullman introduces these new cars, you’ll get a new conception of the comfort that has made *going Pullman* the *custom of the country*.

NOW’S THE TIME TO BUY ANOTHER WAR BOND!

PULLMAN

● For more than 80 years, the greatest name in passenger transportation—now carrying out mass troop movements with half its fleet of sleeping cars and carrying more passengers in the other half than the whole fleet carried in peacetime!



In war or peace

B.F. Goodrich

FIRST IN RUBBER



Teaching trucks good posture

A typical example of B. F. Goodrich development in rubber

EVER drive behind a loaded truck that was leaning heavily to one side? Looked hazardous, didn't it? And it was . . . especially for the tires.

"Poor posture" in trucks is often the result of unequal load distribution . . . more weight on one side than the other or more weight in front than in back. Even if this unequal distribution is imperceptible to the eye it causes one tire to do more than its share of the work and premature tire failure follows.

For years thousands of tires on trucks all over the country were wearing out before their time from this cause alone . . . in spite of the diligent efforts of fleet owners to correct the condition.

Then B. F. Goodrich, drawing on many years of experience in handling the tire maintenance problems of large bus fleets, originated the B. F. Goodrich Tire Conservation Service for fleet operators.

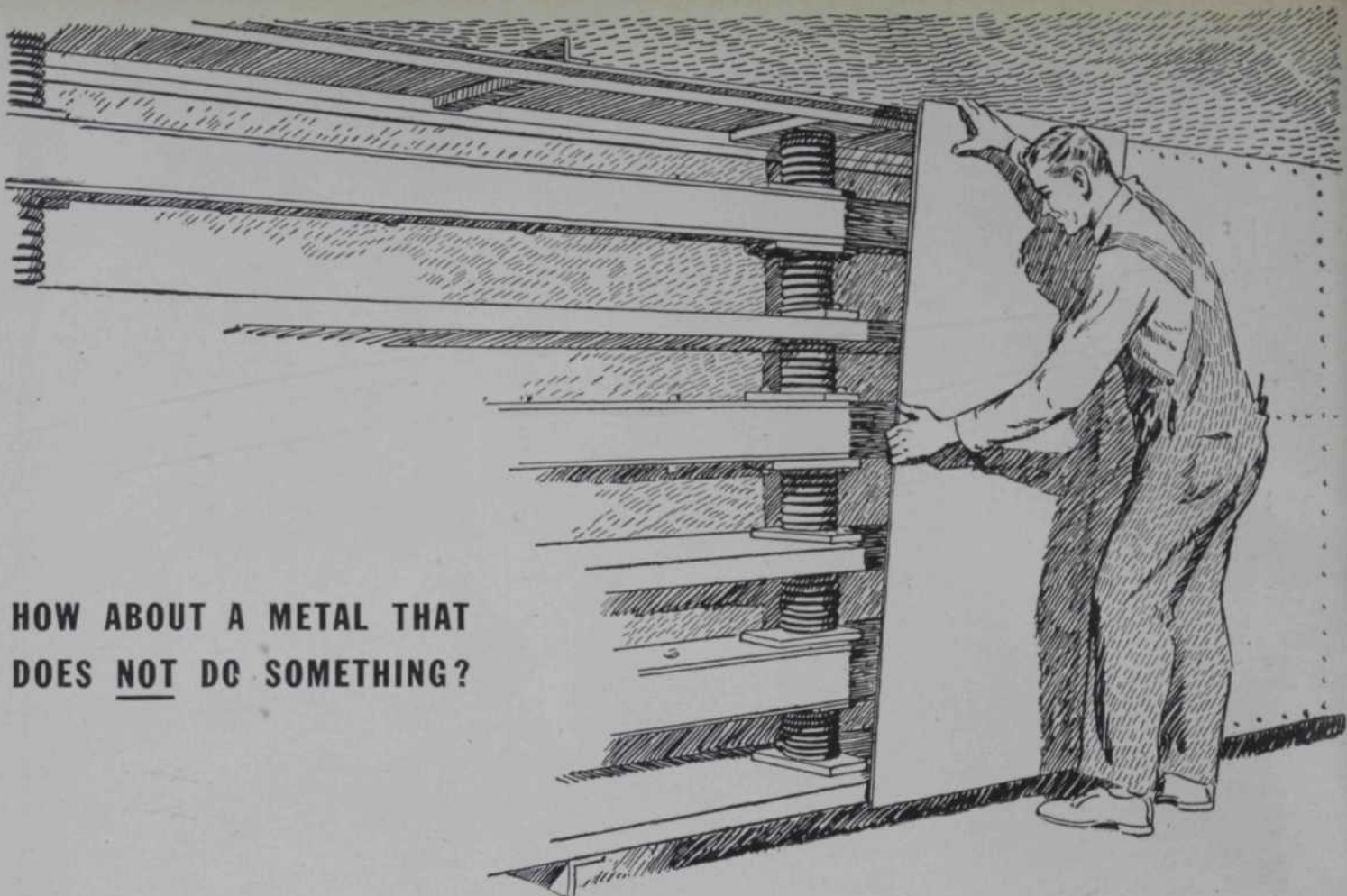
Under this comprehensive, point-by-point program, factory-trained tire specialists take over the complete supervision of your tire care. They check for unequal load distribution as the man is doing in the picture above. They detect mismatched duals, misaligned wheels, and improperly inflated tires. In other words, they know where to look for tire trouble and how to stop it before it starts.

Dozens of fleet owners who are

now using this low-cost service report savings in rubber, mileage, and money. Their typical comments range all the way from "the number of failures has been reduced 60%" to "we believe we will show a 25% savings."

Only a few trained men are available to take over a limited number of additional fleets in certain areas. If you would like to know how this unusual tire conservation plan can increase your truck fleet tire mileage, write the Tire Conservation Dept., The B. F. Goodrich Company, Akron, Ohio. For good truck tires see the local B. F. Goodrich dealer.

B.F. Goodrich
Truck & Bus Tires



**HOW ABOUT A METAL THAT
DOES NOT DO SOMETHING?**

Doesn't magnetize, for instance.

Taking electronics at their promise, it is likely that you will use even more electric current in the future. In that case, you will have more need for a metal that can stand within the field of a current without having its molecules polarized into a hot jive.

Aluminum is non-magnetic.

Aluminum is also strong and light in weight.

This triad of virtues has earned aluminum a highly successful career as bus bar housing. Any metal that can house heavy-duty bus bars without developing objectionable magnetic effects can house anything without magnetic trouble.

What aluminum does *not* do is something to imagineer with!

And while we are looking at the

future of electricity, we might add that aluminum is an excellent conductor. It has carved itself a career also as the bus bar within the housing.

Wherever electricity is carried, aluminum can do it — without

toting useless weight.

What aluminum *does* in things electrical is also something to imagineer with.

Alcoa's vastly increased output is today dedicated to ending the war as soon as possible. But for the time when peace will be won, keep in mind that Alcoa's tremendous tonnage has revised the economic status of aluminum—very favorably. And keep in mind, too, that uniformity of quality is important to mass fabrication. Uniformity in the production of large amounts of aluminum is arrived at only after long years of experience.

Experience in aluminum is *Alcoa*. Fifty-four years of it.


ALUMINUM COMPANY OF AMERICA,
2125 Gulf Bldg., Pittsburgh 19, Pa.

Non-Magnetic

ONE OF
12 REASONS FOR USING

ALCOA

ALUMINUM



REG. T.M.



LONG DISTANCE calls
increased more in the
last 36 months than in
the preceding 36 years.

Bearing up well

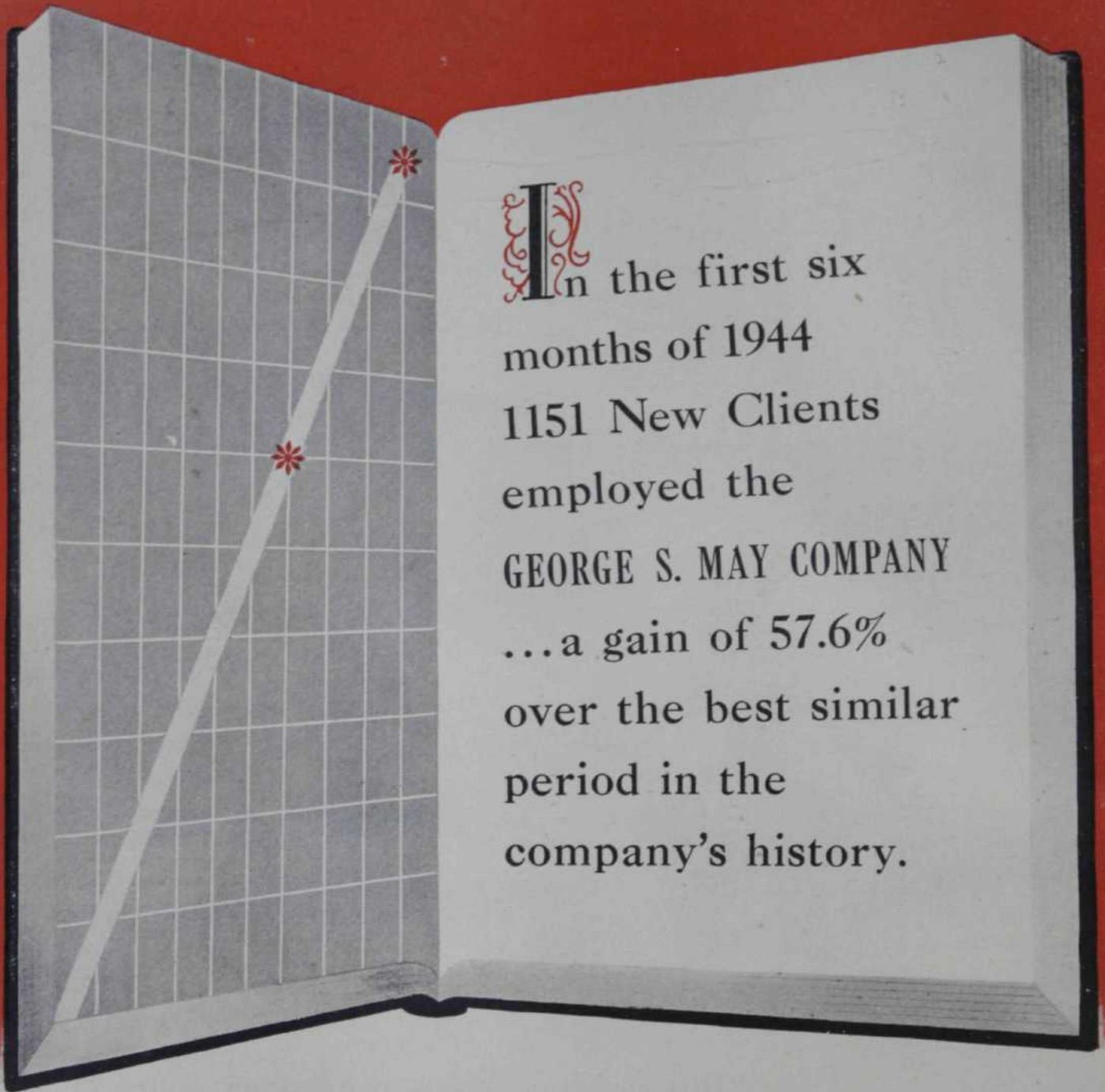
He's carrying quite a load but he's doing all right. And he's mighty grateful for your help — especially when Long Distance circuits are crowded.

Then the Long Distance operator may say — “Please limit your call to 5 minutes.” Saving telephone time is important in wartime.

BELL TELEPHONE SYSTEM



LET'S LOOK AT THE RECORD!



"YOU'VE GOT TO SPEND MONEY TO MAKE MONEY"

**BUY MORE
WAR BONDS**

GEORGE S. MAY COMPANY

The World's Finest Business Engineering

OFFICES IN PRINCIPAL CITIES



PUBLISHED BY

CHAMBER OF COMMERCE OF THE UNITED STATES

VOL. 32

AUGUST, 1944

NO. 8

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Cover photograph by H. Armstrong Roberts

LAWRENCE F. HURLEY—Editor

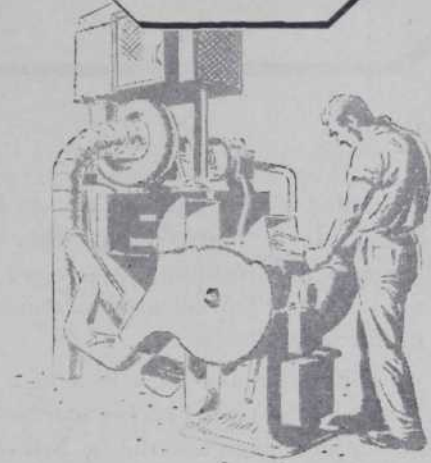
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Manufacturers of materials for war have long since realized the importance of dust control in stepped-up production schedules. It isn't the number of people or the hours they put in that count so much as what is accomplished by those people within those hours, and here AAF has contributed its share to increased production by eliminating the dust that sabotages both men at work and materials in process.

Post-peace dust control will be just as important as war time dust control, for peace time competition will demand careful consideration of all the factors that can result in lowering manufacturing costs. We are prepared now to help you. Please write for "AAF In Industry", a booklet which describes the full line of AAF equipment and its applications. There is no obligation.

AMERICAN AIR FILTER CO., INC.

109 Central Ave., LOUISVILLE 8, KY.

In Canada: Darling Bros., Ltd., Montreal, P. Q.



ENGINEERED DUST CONTROL

Cold Mercy

ICE has added a new phrase to your doctor's vocabulary. It is *Refrigeration Anesthesia*, a revolutionary new technique in surgery that is helping our Navy's Medical Department save lives in the South Pacific.

The ice that streams at a flick of a switch from the Navy's York FlakIce machines provides a complete local anesthesia. Not only the nerves, but the whole living tissue substance is placed in frozen sleep with consequent freedom from pain and shock.

Urgent operations may be postponed for longer periods in greater safety. Under cold's kindly care, bacteria growth is checked, infection minimized, and the local metabolism is reduced to a point at which even a damaged blood supply may be sufficient to nourish the surviving tissues.

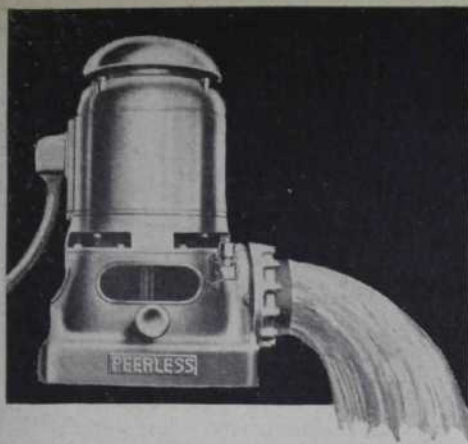
Even on the most far-flung outpost, ice is available for this new mission of mercy. Completely portable, the York FlakIce machine can produce ice in a few minutes. Curved crystal ribbons that don't stick together pour from this unique apparatus . . . ready for the cold packs that may mean another triumph for life over death.

Today, York FlakIce is easing pain, preserving food and helping make life far from home bearable for our men at war. It, as well as many another York contribution in refrigeration and air conditioning, is doing its part to bring closer the day when such apparatus can once more serve the health and well-being of men at peace. York Corporation, York, Pennsylvania.



YORK REFRIGERATION AND AIR CONDITIONING

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885



PUMP WATER

-the Peerless way

PEERLESS-DESIGNED

PEERLESS-ENGINEERED

PEERLESS-INSTALLED

PEERLESS-SERVICED

"TAILORED to fit your needs"

Peerless Pumps are not confined to a single design. Peerless design is engineered to fit the precise conditions of your well. To insure proper installation our Authorized Distributor renders complete engineering service before and after installation, to make sure that the pump you buy will get full capacity out of your well with maximum efficiency. Peerless Turbine Pumps are designed with oil or water lubrication, for capacities from 15 to 20,000 gallons per minute. Peerless Hi-Lift Pumps are for the smaller capacity deep wells, for producing 500 to 3,500 gallons per hour. Peerless Hydro-Foil (Propeller Type) Pumps will de-water up to 220,000 gallons per minute.

PEERLESS PUMP DIVISION
Food Machinery Corporation
301 W. Ave. 26, Los Angeles 31, California
1250 Camden Ave., S.W. Canton 6, Ohio
OTHER FACTORIES: San Jose 5, Fresno 16, Calif.

PEERLESS Deep Well PUMPS

Through the Editors' Specs

Note on child raising

AFTER A RECENT POLL the National Opinion Research Center of the University of Denver reported that seven out of ten Americans declared: "I didn't raise my boy to be a politician."

Having rushed to a typewriter to comment on that statement, we now sit here looking at a wastebasket full of false starts, and arrive at a mildly epic conclusion:

"Seven out of ten people don't know what they are talking about."

On this question, as on many others, the people have allowed semantics to color judgment. Over a long period of time, the word "politician" has acquired an odious cast, but where is the American Mother who has not praised to her son the achievements of Washington, of Lincoln, of Henry Clay, of Patrick Henry or Randolph of Roanoke? Politicians all.

The same mothers doubtless have also regaled young America with the exploits of Robert E. Lee, Henry Ford and Clark Gable.

The point is that, barring a few persistent mothers with vicarious theatrical aspirations and fathers with a family tradition of the clergy, medicine or the law, seven out of ten Americans didn't raise their sons to be anything.

They raise their sons with dreams of filial greatness and when the dream comes true, they are proud, whether the greatness is achieved in sports, in science, in industry—or in politics. One cannot but hope that nature, smarter than seven out of ten Americans, will equip some, both sons and daughters, to be politicians.

Otherwise democracy is doomed.

It has happened

ONLY nine times in 70 years has Congress reduced its appropriations as against those of the preceding session. Two of the reductions occurred in years directly prior to war years, while four of the reductions took place in years directly after a war.

The average reduction was a little

over eight per cent; the biggest cut, that of the 66th Congress, was about 30 per cent; while the smallest was two per cent—that of the 75th (1938-39).

Well, it's something to shoot for

WE PAUSE to quote J. F. Lincoln, president of the Lincoln Electric Company, Cleveland, Ohio. On *America's Town Meeting of the Air*, concerning the subject: Will Wage Incentives Eliminate the Conflict Between Labor and Management? Mr. Lincoln said, "Over a period of ten years by this system The Lincoln Electric Company has increased production per man by 12 times the previous average. It has reduced prices by more than 60 percent. It has increased wages by more than four times. It has increased the dividends paid to the stockholders by more than two and one-half times. Hence, all three interested parties—the public, labor, and the stockholder—have gained enormously. What is more important, however, the number of people employed has increased by four times because of reduced prices."

What shoppers want

KNOW what is No. 1 on the housewife's after-war shopping list? A pressure cooker. A Presto pressure cooker, we are told by the McCord Company, which handles advertising for the National Pressure Cooker Company.

Mebbe so, postwar, but nowadays in our house the No. 1 item varies from day to day. Last week it went from a box of Kleenex to thirty cubic yards of top soil for the lawn. Yesterday, which was a hot day in the kitchen, No. 1 wish was for a cook, not cooker, and preferably low pressure.

Times DO change

TWENTY-FIVE years ago Director General Hines asked Congress for an appropriation of \$1,200,000,000 to finance the railroads for the balance of the year (1919) and to pay the government's operating loss for the preceding 16 months. The above sum was in addi-

IT'S THE MEN and Women WHO MAKE THE ERIE

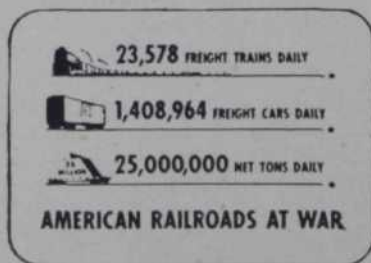


ALL along the Erie Railroad, women employees are doing a real job for wartime transportation.

We're proud of the job they're doing. And the men of Erie, from the oldest veteran to the newest recruit, fully appreciate the help of women workers in keeping vital freight on the move.

But women's place in railroading is nothing new to us. For years past, women have played an important part in the Erie Railroad.

So to us, "It's the Men Who Make the Erie", has always meant the *women*, too. The job they are continuing to do is a real contribution in carrying the load for Victory.



BUY WAR BONDS AND STAMPS



Erie Railroad

ONE OF AMERICA'S RAILROADS—ALL UNITED FOR VICTORY

tion to \$500,000,000 appropriated the year before.

Today, instead of being under government control and operating at a loss, the railroads are doing a far bigger job—under greater handicaps—and are paying nearly two billion dollars a year in taxes to the national resources.

"Agents" for soldiers

WHILE we are on the subject we should also mention the detailed manner in which Sol Kaplan's department stores of upper New York State are keeping in touch and "doing" for their former employees. This Company has a "special Service Department" to which their G. I. Joes may write if they wish bills paid, friends contacted or other transactions handled. Money is also lent without interest, signatures, or stipulated repayment dates. From \$5 to \$100 is available for the use of each needy serviceman and woman within a few hours. Only requirement is that each loan be repaid before another loan is granted. The store will even obtain special gifts for loved ones. A Shetland pony has been purchased for the son of an ex-employee now in Africa, a rare music-box has been obtained as a present for the wife of another in England. No cash is required for such items—and they do not have to come from Kaplan's stock of merchandise. The soldier just tells the store what his wishes are and pays for the items the best he can.

We wish we had the room to mention what other companies are doing, too.

By their voices he knows them

WE LIKE the story about Cloud Wampler, president of the Carrier Corporation, and the blackout:

It seems that, while Mr. Wampler was addressing a class of more than 100 employees attending the corporation's Institute of Business, the city of Syracuse put on a practice air raid and the lights were cut off.

Standing in the dark, Mr. Wampler suggested a general question and answer period and, as questions came to him out of the void, he found himself answering the questioners by name.

In days when people are bemoaning the fact that business is now so big that the boss no longer knows his employees, the feat is remarkable. It surprised Mr. Wampler. It surprised the people present. In fact, they are still talking about it. In fact—so are we.

Not forgotten

MANY FIRMS have launched upon various undertakings designed for the benefit and service of their former employees—now working and fighting for all of us. Some have been rather far reaching and out of the ordinary, while other "plans" have been the essence of simplicity.

For example, some 27 months ago the people in the International General Electric Company put up some yellow

boxes to raise cigarette money for a Royal Canadian Air Force squadron they had adopted. Later the boxes stayed up and, to date, more than \$8,000 has passed through them. Result? Each former employee of the Schenectady plant who is now in the service receives a birthday check and a Christmas present. All of them under the rank of sergeant receive a monthly gift. In addition, a weekly news publication is printed by I. G. E. for their 59 fighting men—it is called "The Yellow Box."

All from the simple idea of putting up a few boxes and painting them the color of dandelions.

Marital counsel

THE FBI has recently caught up with a girl whom they have charged with violating the Serviceman's Allotment Act. They say she had 16 husbands. If all of them were servicemen—and most of them were—her monthly monetary take as a multiple dependent was \$800.

Considering the prevalence of divorces and the things that married women tell each other about the difficulties of being satisfactorily married to one man, it would seem that a woman who could maintain satisfactory relations with 16 men might have sound counsel about the whole marital situation.

She did—and it wasn't very flattering to men.

As the FBI led her away to the pokey, she asked a sanity hearing in federal court:

"I feel there is something wrong," she said.

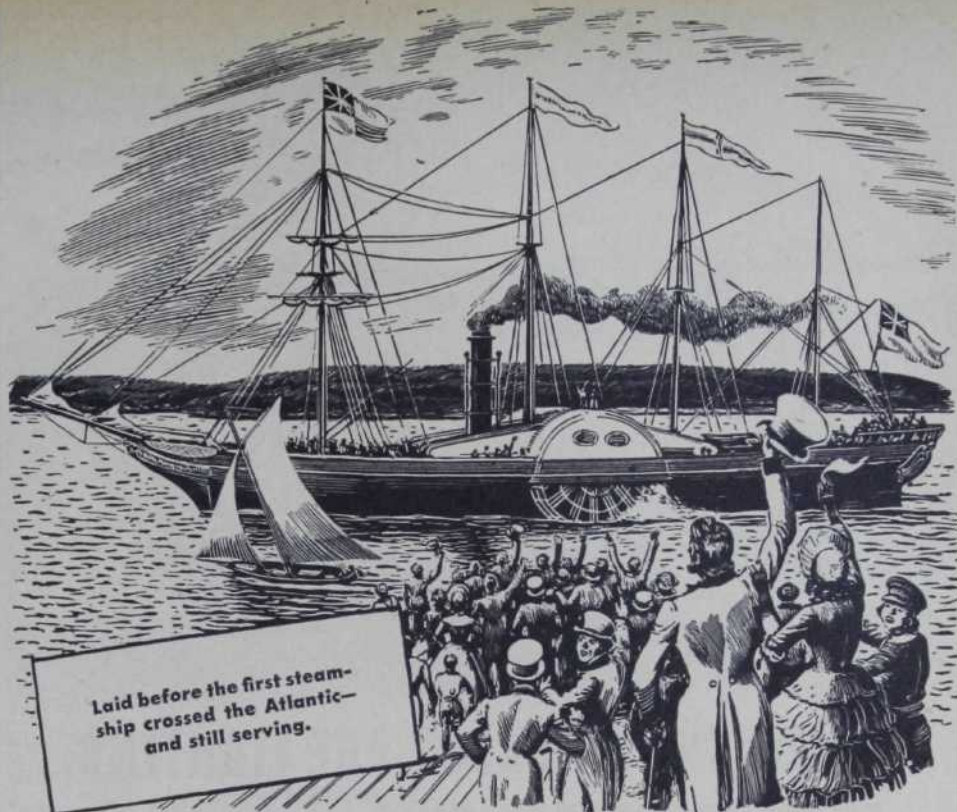
Wasps in the back seat

ANYONE who has ever experienced the uncertainty that grows out of the knowledge that there is a disgruntled bee in his automobile with him, will admire the quaint courage of the Pan American Clipper pilot who recently promoted international amity by ferrying 50,000 wasps from Cuba to Mexico. The wasps were presumably caged but even so a prickling sensation at the base of the neck throughout the trip seems inescapable.

Once released in Mexico, the wasps will start a relentless warfare against the "Black Flies" that are causing destruction in the fruit producing areas. Wasp larvae live on flies and, when numerous enough, reduce the pest almost 100 per cent. They were originally imported to Cuba from India and have protected Cuban fruit so well that Rodolfo Arango, of Cuba's Ministry of Agriculture, suggested them to Mexico after a recent visit there. He arranged the shipment.

Words will win the war

WHEN a lumbering Army truck breaks down in China and native mechanics rally round to make repairs, the driver blesses the name of Calvin C. Chang. Or at least he would if he had ever heard of Mr. Chang, which he probably hasn't.



INSTALLED 113 YEARS AGO



STILL IN SERVICE

When the steamship Great Western arrived in New York harbor from Bristol, England, in 1838, establishing steam navigation across the Atlantic, this cast iron water main (see cut above) had already begun its long service to

the citizens of St. Louis. After 20 years, it was taken up and removed to its present location where it has been serving faithfully ever since. Do you wonder that cast iron pipe is known as Public Tax Saver Number One?

NO. 1 TAX SAVER



CAST IRON PIPE RESEARCH ASS'N, T. F. WOLFE, RESEARCH ENGINEER, 122 S. MICHIGAN AVE., CHICAGO 3

**CAST IRON PIPE
SERVES FOR CENTURIES**

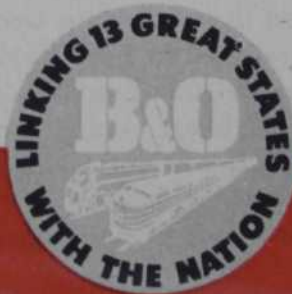


AMERICA'S FARMERS ARE FIGHTING FOR FREEDOM WITH *Food*

A fighting man needs *twice* as much food as the average civilian. When we think of this in terms of America's Army and Navy millions, then add the vast food requirements of our Allies, and consider the ever-increasing shortage of labor, it is easy to realize the tremendous task confronting our farmers. Yet, the American farmer is coming through. His wheat production in 1943, for example, totaled over 836 million bushels—an increase of more than 95 million bushels over the peace-time year of 1939. ★ We, of the Baltimore & Ohio, have a high regard for the ability of America's farmers. For every day, hundreds of carloads of farm products speed over our 11,000 miles of track on way to cities, camps, and ports—ample testimony that America's farmers are meeting the world's demands with the typical resourcefulness that is their heritage. And one of the most vital war jobs for our 70,000 workers is to get the food trains to their destinations promptly.

R. B. White
R. B. WHITE, President

➔ MILLIONS OF ACRES OF FERTILE FARMLAND IN THE 13 GREAT STATES SERVED BY THE B&O ARE HELPING TO WIN THE WAR AND FEED THE WORLD.



BALTIMORE & OHIO RAILROAD

So we here bestow a small, deserved accolade on one of the war's unsung heroes.

With the war, the use of motor cars grew so rapidly in China that the written language could not keep up and a man who had urgent need for, say, a bumper bar, probably couldn't even talk about it, since nobody was sure what words to use. Mr. Chang remedied that. With the cooperation of C. Alfred Campbell, vice president of the Marmon-Herrington Co., of Indianapolis, which afterwards distributed the volume, he prepared the "New English-Chinese Automotive Dictionary," compiling names and terms and translating them into Chinese. After translation, he inscribed the Chinese words and characters (ideograms) by hand for photographic reproduction. As an indication of the months of research and painstaking toil that went into the job, we give you here a small sampling of one of the book's 236 pages:

Bulb	燈泡
Bulb Horn	皮球喇叭
Bulge	突出, 膨脹
Bulkhead	隔壁, 戰車隔壁
Bull Dozer	築路開土機
Bullet Proof	防彈的
Bumper	車擋, 保險槓, 防衝器
Bumper Arm	車擋臂
Bumper Bar	車擋橫鐵

Note to grammar teachers

IT HAS OCCURRED to us that some of our literature's most terse and dramatic prose is being written in the daily communiques from the fighting fronts and that teachers of grammar might use them to brighten up an otherwise dull period in the day's curriculum.

We imagine that the proverbial Little Johnny in the back row who doesn't give a hang about parsing Gray's "Full many a gem of purest ray serene the dark, unfathomed caves of ocean bear," would quit throwing spitballs long enough to take an interest if the sentence under discussion were, "Sighted Sub, Sank Same," and would find English class more to his liking if allowed to ponder the more recent communique from the Allied Expeditionary Force at Le Havre: "Two enemy M-class minesweepers, which appeared to have come to the assistance of their forces, engaged one of their own E-boats briskly, and our forces then withdrew."

Sand can spoil a lot of things



SAND. Let that hard, sharp stuff get into the wrong places and it spells trouble.

Certainly, what it can do to an automobile is something pretty bad.

That's why General Motors engineers, intent on making more and better things for more people, fought for years to protect moving parts against sand and grit.

One by one, they closed the avenues by which sand worked its way to vital points. They sealed the brakes. They sealed the wheel bearings. They sealed the chassis. And they gave your car a

new lease of trouble-free life.

Now, war — a war of machines. The job of protecting the thousands of parts in each of these machines jumped into a number one spot, and that's where the engineers found how useful their work had been.

They were able, right then, to seal vital parts of tanks and trucks against North African sandstorms, coral dust in the South Pacific, cutting silica in European beachheads. That sealing also kept out mud, water, snow. It cut precious, life-saving repair time. It helped, in its modest, quiet way, to win our battles.

Those trucks and tanks had the protection they needed because a direct effort to improve the life of peacetime America built up a fund of experience invaluable in wartime.

Our country is rich in such reserves of useful knowledge simply because in our land, men work for, and get, fair rewards for their enterprise.

This is the idea that helped make pre-war America great. It has proved extremely useful in war, and it will produce more and better things for more people in the greater America to come.

Every Sunday Afternoon
GENERAL MOTORS SYMPHONY OF THE AIR
NBC Network

GENERAL MOTORS

"VICTORY IS OUR BUSINESS"

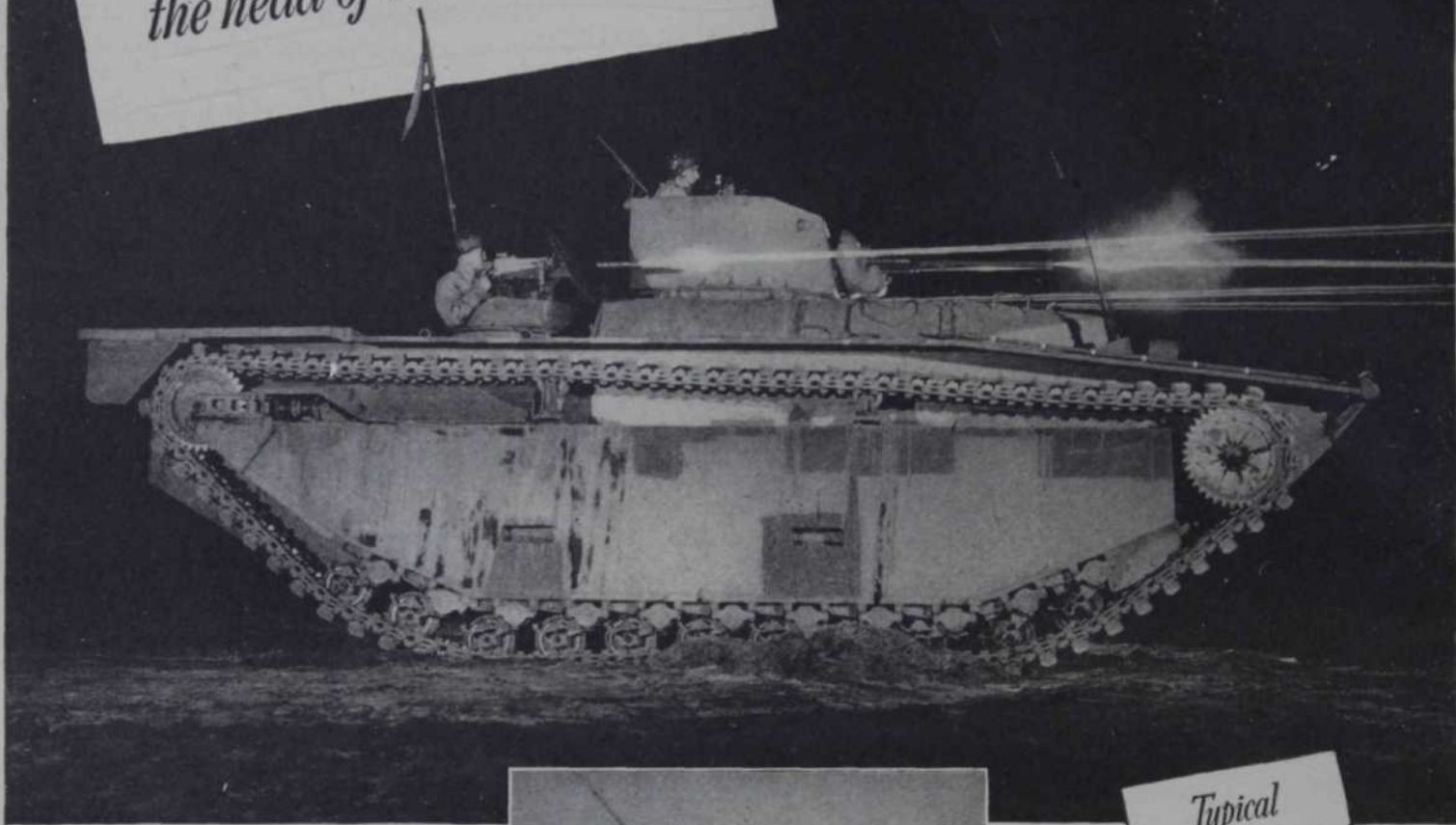
CHEVROLET • PONTIAC • OLDSMOBILE • BUICK
CADILLAC • BODY BY FISHER • FRIGIDAIRE
GMC TRUCK AND COACH • AC SPARK PLUG

KEEP AMERICA STRONG

Buy More War Bonds



"Water Buffalos"
*are fighting at
 the head of the invasions!*



"THE most unstoppable vehicle yet devised for war" is how the Marines describe the "Water Buffalo"! Spouting death from heavy caliber guns, these amphibious monsters spearhead attacks...swim through seas, charge across coral reefs and beaches, smash over barricades and pillboxes. Tirelessly hauling men, guns, ammunition and the wounded where no other boats or vehicles could go, "Water Buffalos" have helped win victory in nearly every American invasion. • Designed in cooperation with the U.S. Navy Bureau of Ships, "Water Buffalos" were engineered and are built by Food Machinery Corporation, manufacturers of various types of equipment, some of it shown at right. Many new and improved products for postwar America will result from FMC's creative "know how."



*Typical
 FMC Products*



FMC Original Fog Fire Fighters, using FMC's high-pressure Spray Pump (Bean) as a basis.



Peerless Pumps, used wherever water is pumped... factories, farms and cities.



Flavorseal Protective Process... a wax film to keep produce fresh longer and reduce spoilage.



Food Canning Machinery... complete line of equipment for processing and canning food.



Insecticides and Dusting Machines... a line of equipment for protecting crops from insects and disease.



Continuous Sterilizing Line (Anderson-Barngrover) processing over 70% of nation's evaporated milk.

FOOD MACHINERY CORPORATION

EXECUTIVE OFFICES: SAN JOSE, CALIFORNIA

MANUFACTURING DIVISIONS:

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The store with *EYE-APPEAL*

inside and out

is the store with *BUY-APPEAL!*



BEFORE



AFTER

**Plan NOW to modernize your store and you'll
avoid construction delays later.**

TWO of the best ways yet discovered to give people the urge to buy at your store are these: Plenty of Pittsburgh Glass in your store *interior* . . . to make it attractive and inviting. And plenty of Pittsburgh Glass in your store *front* . . . to give it appeal and stopping power.

That's a combination that pays off

in bigger sales and better business. Plan *now* to put it to work for you at the earliest possible moment. By planning your new store interior and store front today, you'll avoid construction delays later. For when building restrictions are lifted, there's pretty sure to be a rush for store alteration.

DON'T WAIT to make your plans for modernizing your store front and interior. Do it now . . . and save delays later. This store in Cincinnati, Ohio is a good example of the eye-appeal you can give a store with Pittsburgh Glass. Architect: O. H. Bardon.

See your architect to assure a well-planned, economical store design. Our staff will gladly cooperate with him.

And send the coupon below for our free books of facts, figures and photographs of many actual store-remodeling jobs done with Pittsburgh Glass and Store Front Metal.

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Built to PROTECT OUR GOOD NAME



WERE you to visit the great factories where these rugged new Goodyear synthetic rubber tires are built, you would see this legend enframed on every work-room wall:

PROTECT OUR GOOD NAME!

It is not new. It was first written there three decades ago when Goodyear was a young and struggling rubber company.

But to every Goodyear worker it has been a constant reminder of the ideal

on which this business was founded — to deserve a good reputation through good work.

In that belief we have ever striven to put something more than the best materials into our tires. We have sought through craftsmanship to endow them with value and utility above the accepted standard.

That we have succeeded is evident, we believe, from the fact that for more than a quarter-century it has been true "more people ride on Goodyear tires than on any other kind."

Today, this ingrained habit of laboring for perfection takes on new import in producing tires from synthetic rubber.

For synthetic rubber is not only more difficult to compound; it requires more

skill, more finesse, more babying to mill, to mold and to cure.

Because Goodyear is accustomed to this kind of work, because our whole reputation rests upon it, these new Goodyear stalwarts can be honestly recommended to you as the finest example of the art of synthetic tire manufacture.

You will find them bettered by all the skill we have acquired in building more than 350,000,000 pneumatic rubber tires — the world's record. Advantaged, too, by our twenty years' experience in developing synthetics.

But most important of all you will find them to be truly representative of the value and quality that have made Goodyear tires the world's first choice — *because they are built to protect our good name.*

BUY WAR BONDS ★ BUY FOR KEEPS

NO OTHER SYNTHETIC RUBBER TIRE OFFERS YOU ALL THESE ADVANTAGES

1. Twenty years' experience with synthetic rubber
2. A tough, sturdy carcass of prewar quality low stretch Supertwist cord
3. Tested non-skid safety from time-proved Goodyear tread design
4. Maximum wear from scientific Goodyear design that keeps tread under compression
5. Greater experience and skill evidenced by Goodyear's record in building more than 350,000,000 pneumatic tires — millions more than any other manufacturer



Supertwist—T.M. The Goodyear Tire & Rubber Company

GOOD YEAR

THE GREATEST NAME IN RUBBER

MANAGEMENT'S

Washington LETTER

A last minute roundup by a staff of Washington observers of government and business

RECONVERSION TO PEACE PRODUCTION makes a small beginning this month under Nelson program authorizing Regional WPB Boards to approve local resumption programs (effective August 15) when and if manpower and materials available.

Each case will be handled in light of (1) manpower picture in community, and (2) relative importance of the applicant in over-all civilian production schedule.

Remember how conversion to war work was accomplished in 1941-42—plant by plant and industry by industry. The unwinding process will be by precisely same methods—spotty, much backing and filling; a lot of pulling and hauling between rival plants and competing industries; but a situation full of opportunities for aggressive and energetic management.

► GERMAN WAR PRODUCTION IS FALLING BEHIND current field requirements, says a confidential survey by Foreign Economic Administrator Crowley, based on consultations with allied military intelligence headquarters in London.

This report presents the "nearly hopeless position of the enemy by the end of this year."

"Germany has fought the war until 1944 always within the limits of her power, and always with a margin for greater exertion if necessary. Today, with the allied victories in Italy, the landings in Normandy, and the new Russian attacks, almost all margins are gone...Germany today lacks the economic foundations necessary to meet the full scale of allied attack on the Eastern, Southern, and Western fronts."

► STEEL INDUSTRY has put \$1 billion into expansion program, matching dollar-for-dollar the Government's investment since 1940.

American Iron and Steel Institute reports this \$2 billion investment has added 15 million tons of ore production a year, 14 million tons of new blast furnace capacity, and 12 million tons of steel mill output.

Effective steel ingot capacity is now 93 million tons a year, against 80 million in 1940. Peak prewar production was 63 million tons (1929).

U. S. steel exports for 1940-44 were 35 million tons, or approximately enough to supply entire peacetime automotive demand for 3 years.

► HIGH OCTANE GASOLINE plants have been completed, making 189 new units put in service since 1942.

Total production capacity is a military secret, but 450 refineries and natural gasoline plants have participated in program. First 7 plants were built in '42; 71 in '43, and 111 in '44.

Military allocations now taking 40% of all gasoline production, mostly in 100 octane.

Warning note from petroleum industry: "If, after the war, any substantial part of the world is to enjoy a standard of living approaching that achieved in the U. S., world production of oil must be greatly increased."

► CHILD LABOR LAWS and regulations have been relaxed in many states as an aid to war manpower problem.

A handy, up-to-the-minute summary of all such revisions, including federal administrative rulings, is available through Division of Transport Personnel, Office of Defense Transportation, Washington 25, D. C.

► LUMBER SHORTAGE is principal bottleneck in resumption of private construction, says WPB.

Total of all construction for 1944 is estimated at \$3.5 billion, about 46% of 1943 and 27% of 1942.

Completion of military building program indicated by fact that this time in June '44 it was \$65 million, against \$217 million in June '43.

Construction on government-financed war plants was \$129 million in June '44, against \$413 million for June '43.

Total privately financed construction in June was 38.5% of national total, against only 20% in June '43.

► CLAIMS AGAINST GOVERNMENT for shipping losses will be entertained by WSA even if suit is not filed within statutory

1-year. Censorship of war sinkings often prevented shippers' knowing of losses within limitation period.

► **SURPLUS WAR PROPERTY DISPOSAL** is in hands of 8 federal agencies, with Surplus War Property Administration endeavoring to set down guiding policies under Presidential executive order, but without effective authority from Congress.

Disposal of all government real estate has been centered in RFC and DPC, under Col. Michael J. O'Byrne, former consulting appraiser for HOLC and FDIC.

Surplus property disposal agencies now organizing their separate programs are RFC, DPC, Treasury Procurement Division, Maritime Commission, WFA, National Housing Agency, Federal Works Agency, and Foreign Economic Administration.

War and Navy, the biggest holders, are marking time on surplus property pending congressional action next winter.

► **SURPLUS SHIPYARD MATERIALS AND PARTS** will be pooled by Maritime Commission in 3 storage scrap yards to facilitate orderly disposal. First collection yard opened recently at Reading, Pa., to handle all surpluses from East Coast and Great Lakes Regions. Two other area yards are now under negotiation, for Gulf and West Coast.

These three concentration points will bring together all surplus materials from some 150 shipyards, for quick inventory, appraisal, cataloging and bidding. Maritime Commission was first federal agency to complete detailed plans for surplus property disposal.

► **PACKAGING RESEARCH** by Quartermaster General has reduced army food losses by 90%, as compared with first year of war.

At same time, repackaging of foods, drugs, clothing and PX items has saved 15% in shipping space.

Field examination of V-boxes in South Pacific disclosed only 50 damaged out of 181,899 inspected.

Every hazard of handling, insects, mold and weather has been overcome.

Significance: New frontiers in packaging are ready for immediate postwar application.

► **AVERAGE HOURLY EARNINGS** in all U. S. manufacturing industries have passed the \$1 mark, Labor Department reports; average advanced 7.9% during last year.

Average hours of work per week appear fairly stabilized at 46.7 for durable

goods, and 43.2 for nondurable goods.

Highest average earnings by industries: shipbuilding, \$1.319; locomotives, \$1.31; aircraft engines, \$1.301; building trades, \$1.296; autos, \$1.257; rubber tires, \$1.256; petroleum refining, \$1.241; newspaper printing crafts, \$1.224; machinery, engines and turbines, \$1.213; bituminous coal, \$1.176.

Average hourly earnings in all manufacturing for 1939 were 64.4 cents.

► **SPECIAL BONUS TO TRUCK DRIVERS** for returned fiber shipping containers may be paid without wage-increase application to WLB.

Although no figure has been set, WPB's Forest Products Branch suggests 3 cents per carton as reasonable return bonus.

Only intensified reuse campaign will see country through present pinch on shipping containers.

► **IN-PLANT OPTICAL CLINICS** are yielding unexpected returns for Sperry Gyroscope, enabling foremen to match vision defects with less exacting jobs for older people; providing special lenses for particular operations; reduction in fatigue accidents; considerable savings on "rejects" in precision assembly operations.

Special 8-minute routine eye test measured 12 vision factors according to job requirements in various departments; disclosed 40% of employees in need of professional eye care.

► **SPECIAL VETERAN'S IDENTIFICATION CARDS** are being issued by USES offices to all discharged service men and women, to facilitate their quick employment. These cards, issued upon showing of military discharge, may be accepted by employers as entitling holder to all veteran preferences under local manpower control programs.

► **INDUSTRIAL FUEL ECONOMY** is making remarkable strides under guidance of National Fuel Efficiency Committees sponsored by U. S. Bureau of Mines.

Surveys indicate full realization of program next winter in coal, oil and electricity would save 29 million tons of coal.

Dr. R. R. Sayers, Director, Bureau of Mines, Washington, now has 100 fuel efficiency committees recruited from industry at work in principal industrial centers.

U. S. coal shortage, on basis of esti-

mated requirements, is placed at 35 million tons for next 12 months.

► GOVERNMENT BENEFIT PAYMENTS to agriculture continue at about \$50 million a month, compared to \$40 million last year.

Federal farm relief this year is estimated officially at \$200 million more than 1934, first full year of "depression" emergency program.

Total farm income (before government subsidies) estimated at \$21 billion for '44, against \$5.3 billion in 1933, when crop-adjustment bounties were launched.

Significance: Although total farm income has doubled twice since 1934, federal aids now are 50% above '34 rate.

► RECONSTRUCTION OF AGRICULTURE already has been begun in Britain, Russia, Italy, Africa and India, under joint action of UNRRA and Lend-Lease.

About 100 million pounds of vegetable and field seeds have been distributed for 1944 planting, in hope of curtailing lend-lease food demands beginning next May.

Among seed items shipped under lend-lease during last year (in pounds): carrots, 2,711,000; green beans, 1,699,000; spinach, 454,000; peas, 15,115,000; timothy, 5,152,000.

Adequate stocks of seed are held in reserve for liberated areas of Europe, in hope that winter wheat may be planted this fall over large areas.

► LINK CHAIN for farm and logging camps is available without priority ratings for first time since June, 1943, under a recent WPB amendment to M-330.

Manufacturers of all types of work chain are authorized to disregard preference ratings lower than AAA to extent necessary to fill distributor orders in farm and lumber areas, up to approximately 50% of their 1940 or 1941 tonnage in harness and wagon chain; 75% for repair links; and 30% for logging chain.

Manufacturers also are authorized to prorate shipments within allowable percentages.

This order, in effect, releases half of current production for civilian use without priority ratings—a big help to farming and lumbering, which have been on a bailing-wire-repairs basis for almost a year.

► CHANGES IN U. S. TARIFF RATES since 1930 Act have been compiled officially for first time since war. Complete sur-

vey of import duties and emergency exemptions is available from Superintendent of Documents, Government Printing Office, Washington, D. C. Price is 25 cents (stamps not acceptable).

► ARMY MEDICAL REPORTS reflect a higher percentage of physical deferments than last war.

Out of 5,200,000 examined in 1943, a total of 1,900,000 were rejected—36%.

General health of wartime Army now is "better than it was at any time during peace. Only 3% of the men who are wounded die of their wounds."

Army wartime death rate from disease last year was 6 per 10,000, against pre-war civilian average of 68 per 10,000 each year.

► WASHINGTON BUSINESS BRIEFS: Cotton textile conservation is today's No. 1 household problem; government allocations for third quarter will require practically all of the usual civilian fabrics produced—100% of sheetings, broadcloth, pajama checks; 90% of whipcords, shirting coverts, work flannels, and cotton flannels; 80% of carded poplins....FBI reports for 1943 show one "major crime" in U. S. every 23 seconds on the clock; every day brings 745 burglaries and 514 auto thefts; arrests of females under 21 showed an increase of 47.9% over the high figures for 1942, and arrest of boys under 18 increased 23.4%....Our synthetic rubber program is already producing more raw material than tire factories can handle with available manpower and equipment. ...Aircraft production now employs 2,100,000 workers, about half women; maximum estimated post-war employment will be 400,000, about one-fourth women. ...Ceiling prices become effective for all restaurants and public drinking places August 1; prices must be posted for 40 basic items; base period is week of April 4-10, 1943....White leather for milady's shoes has become a war casualty; tanners say white pigments are practically unobtainable under chemical controls and allocations....OPA has called for 90,000 additional volunteer price inspectors in its 5,400 local ration boards, to check compliance; this would bring OPA workers to more than 50,000, including present volunteers. ...Children's Bureau plans to extend maternity care to 500,000 service wives in coming 12 months; has \$42,800,000 for emergency program; reception centers getting 46,000 cases each month.

... in the public service
for **40** years



Build Your Future With War Bonds

From the very beginning, Reo has been designed to serve the public. It has grown up with commercial transportation, and over the years has pioneered many major features which contribute to efficient truck operation. Reo helped string the wires and lay the cables that brought light, power and communica-

tions to young towns which are industrial centers today. In the public utilities field, as in many others, Reo assures a full measure of dependable, economical service. A limited quota of Reo trucks has been released by war production officials for civilian use this year. Ask your Reo dealer for full details.

REO MOTORS, INC., LANSING 20, MICHIGAN



Factory Branches in Principal Cities

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1904 • AMERICA'S TOUGHEST TRUCK • 1944

Key to Postwar Prosperity

By JACK B. WALLACH

EVERYONE agrees that, after the war, we can produce as never before. But unsold goods benefit nobody

AT A FEBRUARY meeting of the executives of the Allied Stores Corporation in New York City, the guest speaker proffered some sound advice:

"There must be better methods of selling and more intelligent sales promotion. Salesmen and retail clerks need better training to understand their products and to satisfy the desires of consumers. Sound methods must be developed to permit consumers to finance their purchases of homes, appliances and other goods."

The speaker was Eric A. Johnston, president of the United States Chamber of Commerce.

Today almost every alert, enterprising merchant in the United States agrees with Mr. Johnston. They share, also, the feeling of Walter F. Crowder, chief of Distribution Division, Bureau of Foreign



KEYSTONE

After the war department stores expect sales to increase a billion dollars a year. New techniques are coming

and Domestic Commerce, who, in a recent *Printers' Ink* article, deplored the widespread publicity given to the statement that 59 cents of the consumer's dollar goes for distribution and only 41 cents for production.

They point out that the consumer who gets a good value for a dollar expenditure does not care how his payment is divided between production and distribution costs. Furthermore, although everyone agrees that we will be able to produce amazingly after this war, goods are of no value in the producers' warehouses. Only when they are given what the economists call "utility of place" do they move into the stream of commerce, and only when they are finally sold do they add to the national income.

Since mass production and low production costs depend on that final sale, reduction of distribution costs—from 49 cents to 25 cents, say—might actually mean higher prices to consumer, because, as Mr. Crowder pointed out, "mass production and lower production costs are often possible only through placing an added burden on distribution."

For this reason, the costs of distribution—about which we hear so much—may be trifling as compared to the costs of



Retailers plan courses to re-educate their salespeople in personal selling

non-distribution. Viewed in this light, it is obvious that, in the postwar period, all the tools of selling must be sharpened. Advertising must carry a heavier burden than ever. Services which were curtailed or eliminated by war necessity must be restored.

The burden that postwar distribution will face is quickly summarized:

Retail sales last year totaled \$62,000,000,000 as compared to \$42,000,000,000 in 1939 despite an acute shortage of durable goods and a complete lack of many items. Sales of general merchandise stores, including department stores in all price groups, totaled \$9,000,000,000 as compared to \$6,500,000,000 in 1939.

Looking for a bigger job

IF gross national product in 194X reaches its expected level of \$142,000,000,000, and if retail sales expand proportionately in the resultant market, retail sales should total \$80,000,000,000. Of that, department stores would account for more than \$7,000,000,000 as compared to \$6,000,000,000 in 1943.

Facing this challenge, retailers are already assaying their facilities, studying new techniques, applying war-learned lessons. One of these lessons is that few stores previously realized maximum sales per existing square foot of selling space.

Since Pearl Harbor new store construction or modernization has been negligible. It is estimated that at least 50 per cent of all chain stores must be remodelled and chains are prepared to spend \$500,000 for that purpose. Inde-

pendents have also set aside reserves for remodelling and an even higher percentage of them is awaiting WPB's green light to go ahead.

At the outset, apparently, modernization of stores will be more common than new construction. According to a survey conducted by the *Department Store Economist* in April, stores will modernize like this: 82 per cent will make structural changes of a general nature; 40 per cent are interested in elevators and escalators; 84 per cent plan new lighting; 53 per cent will procure new operating equipment; 81 per cent new office equipment; 94 per cent will repaint; 86 per cent plan miscellaneous installations and 15 per cent will open new branches.

Boot and Shoe Recorder, in a similar survey, found 82.3 per cent of the merchants queried intend to improve their stores when present restrictions are lifted.

Manufacturers interested in the competitive standing of their outlets are proffering practical aid to retailers planning store improvement and modernization. Easy Washing Machine Corporation has distributed to its dealers an elaborate and comprehensive portfolio of architects' sketches and sets of display plans. It offers in addition, to send special architects' sketches to dealers with particular problems. The Armstrong Cork Company is featuring store equipment in an advertising campaign and equipment manufacturers are cooperating with *Chain Store Age* and *Architectural Record* which have collaborated in enlisting the services of a group of ar-

chitects to present "what will be needed to increase the power of postwar merchandise."

The researches indicate that postwar store faces will be lifted literally. All glass fronts will replace conventional brick or stone and street window façades. Store architects contend that the all glass front draws the customer into the store before she is aware that she has left the sidewalk. Within the stores of 194X, clear span construction will eliminate all interior columns and pillars. Many a store will not be preserved beyond its exterior walls.

Store layout will be radically changed to accelerate customer circulation through aisles. Traditional departmental locations will be discarded in the interests of more efficient operations. Flexibility will be the keynote of store equipment. Prefabricated units in ceilings, walls and floors will permit the merchant to change department set-ups, move walls, rearrange lighting and otherwise alter at will. Seasonal departmental changes will be made without calling in a contractor.

One of the first stores of the future in the retail tobacco field to reach the blueprint stage was designed for D. A. Schulte, Inc. Like the other stores of 194X its front window reveals the entire interior. A new note is a push-button control which lowers the window below floor level in fair weather. Its rotary display shelves also are button-controlled, while rotary display units are manually operated. Cyclic poster displays at the top provide photo-chrome projection of changing posters. Other innovations are incorporated into the design which is intended to "stimulate customer appeal from the street and within the store."

Selling by seeing

STORE design for 194X will have one universal, underlying aim: to make selling more direct by bringing merchandise into the closest possible contact with the customer. Having done this, stores will go on to assure desired results.

They know that selling cannot be mechanized. The phrase "visual merchandising" has come to denote merchandise presentations that practically accomplish selling purposes. Actually "visual merchandising" is another name for display and display has its uses and its limitations.

Its value as a selling adjunct is acknowledged, but its potentiality as a substitute for selling is widely scouted. If any item is adaptable to visual merchandising, it is floor coverings, but the Carpet Institute of America, eager to recapture a greater share of the consumer's dollar, is cooperating with the National Retail Dry Goods Association and the National Retail Furniture Association in an ambitious sales training course for store salesmen.

A growing number of other manufacturers and distributors are also re-educating (Continued on page 52)



KEYSTONE

Postwar store design will aim to make selling more direct by bringing merchandise into close contact with the customer

REMEMBERING the mistakes that followed World War I, the men who raise today's food refuse to chase the rainbows of a brave new world



EDWARD F. WALTON

"You can't pay me with 50-cent dollars!" "I won't pay in 50-cent wheat, either."

The Farmer Plays It Safe

By ROBERT P. CRAWFORD

MAYBE YOU know old Mr. Goodman. He owns that 320 acres of second bottom land out there where the river bends.

As a youngster he weathered the '90's and as an old gentleman the '30's. He saw his sons come marching home in 1919, and "by golly," he slapped me on the knee the other night, "I'm going to see this war through, too."

You know Mr. Goodman is a good deal of an oracle, prophet and handy man of advice. Whether he lives in Iowa, Tennessee or Colorado, he is a playful and pungent philosopher.

Today he just doesn't see that rainbow of a brave new world that others are talking about. Nor does he take regular doses of that vitamin called post-war planning. Mr. Goodman has been through drouth and floods before.

Last year the net income of the Goodmans in the United States was \$12,500,000,000—the greatest in history. The

net income of farmers in the past four years has been around \$35,000,000,000. Suppose we lop off a fourth of that for income tax. There remain around \$26,000,000,000. Furthermore the value of farms, taking the United States as a whole, is 14 per cent more today than in those normal years of 1912-14. The Goodmans, of course, can't collect that extra money unless they sell out, or increase the mortgage, but it is about the most comfortable feeling in the world to know that your book value is going up instead of down.

A boom in farm stuff

THE other day I remarked to Mr. Goodman: "You've got money and you know it. Why don't you just cut loose and be an optimist?"

He gave me his most philosophic gaze. "Young man (he looks upon my age as mere youth)," he asked, "did you ever

climb an apple tree? Did you ever fall out? And did you observe that you came down much more quickly than you went up? The force of gravity is always down—never up."

The Goodmans pretty much over the entire country seem to have learned that, and their remarks to me everywhere are about the same:

"Let's wait till we see how things come out."

"We're getting squared around on debts."

"Depressions always come."

"The big boom in farm stuff is here right now—not in the future."

"We know things won't hold up, but they won't go as low later on, either."

That's what you hear, whether in the Corn Belt, in the East, Far South or West. One leading farm paper actually conjured up a headline a while back: "Making Ready for the Crash."

Back in the farmers' minds is the real-

Analyzing the "Farm Boom"

EVER SINCE farmers began to receive higher incomes as a result of improved prices and increased sale of farm products, many persons have felt that a farm land boom was under way.

Supporting this contention they point to the increase, about 14 per cent, in farm values since 1912-14; to the U. S. Department of Agriculture reports which show that the average value-per-acre of farm lands has increased 15 per cent this year; to estimates that, in the past three years, value of farm land has increased about one-third.

However, the mere fact that prices have risen is not proof of a farm land boom. Unless one knows the details of individual cases—location, size of farm, type of soil, improvements such as fences, buildings, etc.—it is impossible to say whether the price of a given farm exceeds its earning capacity as based on prospective demands for farm products.

Undoubtedly there are instances in which poor land has been sold at a high price to inexperienced buyers who did not know the requirements of a good farm, but these cases should be disregarded in determining an average figure. Likewise, in the case of good farms, the selling price of recent years should not be compared with the price at some earlier period when the demand for farm products was much lower.

Neither is it safe to relate present land values too closely with the greatly increased farm income that has been obtained since the beginning of World War II. Allowance must be made for the greatly increased demand for farm products and the unprecedented volume that farmers have supplied as a result of the war stimulus and favorable growing conditions. For a number of years this accelerated demand can be expected to continue, with consequent high incomes which may be applied to the farm purchase price, since there is but little else to purchase.

My information indicates that farmers of today are exercising good judgment by curtailing indebtedness, making improvements, and increasing their savings. They are fortifying themselves against such changes in the demand and prices of their products as may come in the postwar period. My personal observation and inquiry in various parts of the country discloses no indications that farmers are rushing to buy additional land at prices unrelated to the prospective earning capacity of the farm as was done during, and for a while after, World War I.

Of course, there are farm purchases which are made from the standpoint of a safe investment, even though the price paid is not commensurate with the earning capacity of the farm, especially if commodity prices decline. Such sales, as a rule, are entirely for cash and if income from the farm decreases, there is no danger of losing it because of heavy indebtedness.

Furthermore, it must be recognized that the proportion of high-producing farm land to the total population is decreasing. As a result the better lands have a higher value and, where they are located on or near good roads, fairly close to markets, good schools, and cities offering attractive recreational facilities, they are certain to command a higher sales value.

With wartime, with farm incomes greatly increased, it is not surprising that an extensive interest in the ownership of farmlands should develop. This expression of an increased demand on rather a wide scale naturally tends to bring about an uptrend in prices. Farmers gained good, though expensive, experience from the losses after World War I (not all of which can be credited to unduly high land values). Therefore they are proceeding with caution and, in most instances, exercising good judgment in the present situation. The prospect of continued high incomes for several years is not causing farmers to lose sight either of the increased costs of operating their farms or the possibility of still higher income tax rates which would leave them with lower net incomes than formerly, even if gross incomes should be higher.

Considerations of this sort, together with the inability to get necessary labor, machinery and supplies with which to operate the land they now own, are serving as checks on many farmers who would like to own more land. They can be expected to exert sufficient influence to prevent any dangerous inflation in land values.

DELOS L. JAMES
*Manager, Agricultural Department
U. S. Chamber of Commerce*

ization that this war has created a veritable flood of things to eat. Most city people simply don't understand that we are producing as never before, eating as never before and keeping a great war going, all at the same time. We are actually producing one-third more food than in 1935-39. The increase in volume of food production in this war has been three times the increase during a similar period in the first World War. The great food shortage that everyone was talking about simply did not appear. Abundant reserves, now exhausted, prevented that calamity.

Mr. Goodman knows he turned out the food all right, but that makes him think. If he can do that in war time, what couldn't he do in peacetime? Maybe other countries can do well, too. Of course he knows they'll need food in Europe, but he also knows that other countries have food to ship, whenever they can get ships.

Our supply lines and depots all over the world have been stocked with food. For our foreign troops there has to be a 270-day stock of food on hand and in transit. That stock pile of food came right out of our supplies while we all were still eating. It remains constant and from now on those stock piles will simply be replenished as food is used up. Mr. Goodman suspects that rationing has made lots of people hoard. When the war ends perhaps our own people will not have such big appetites. Maybe they won't have so much money to spend.

Then he notes that there were four per cent more cattle on farms early this year than a year before; that there were 14 per cent more hogs, six per cent more chickens than a year ago, promise of very much more citrus fruit than the average in 1935-39. He had a hard time working off his eggs this spring. They couldn't take all the stock he could deliver at the packers.

Preparing for bad times

BECAUSE he sees all of these things, Mr. Goodman and his friends have been battenning down the hatches. If you are not nautical enough to understand stormy weather, that is the same thing as not climbing out on a limb that someone else is sawing off.

There are two ways of doing it. One is getting rid of immediate debt and the other is avoiding debt. That is why, in March, one insurance company found \$5,000,000 of its mortgage loans paid off, when it had only \$65,000,000 outstanding. Last year farmers paid off farm loans of \$17,000,000 to that one company. The total mortgage debt on farms has now declined to around \$5,600,000,000. This is less than at any time since our entrance into the last World War and only a little more than half that in the early '20's.

This fall you will find that farmers are thinking more conservatively in buying livestock as contrasted with raising it. The farmer, of course, will not slow up food production, as long as it is need-

(Continued on page 82)



SIGNAL CORPS PHOTO

An American and British officer instruct citizens of St. Agata, Sicily

Our Fighting Vanguard of Peace

By JUNIUS B. WOOD

STORIES from the fighting fronts of France and Italy bring an occasional modest, and often critical, mention of AMG (Allied Military Government), ACC (Allied Control Commission), and the other army civil affairs organizations which have been born in the present war.

What are they, and where do they fit into the picture?

In Italy, AMG is the business man, the civic leader, the public official, banker and engineer at war. As its name indicates, it is a part of combat operations. At the same time, it is the first pier of a solid structure to bridge the change from war to peace. AMG is a part—the forward echelon with the combat troops—of ACC, the Allied Control Commission.

The armies and ships and AMG move on as the fighting front advances but other units of ACC follow to continue the job—establish permanent government, restore economy, reopen business,

RIDING with the first wave of invasion, the soldiers of AMG dodge shells to take over local government, restore order and control foreign civilians so that the combat troops may advance unhindered

give employment and build the peace for which the war is being fought.

While new recruits were being drilled, factories were changing to war production and the public was speculating whether New York would be bombed and whether Berlin and Tokyo would be occupied, the foundation was laid for ACC and the training of men started. When the day arrived, this new and until then unknown branch of the armies was ready to do its part in the fighting and in the building for the future.

A sketch of a typical AMG unit in operation tells more than pages of dia-

grams and words. This unit is on an LCT craft, part of a convoy moving toward an invasion coast. Ten officers—some trained for their civilian duties in Charlottesville, Va., and others in Wimbledon, England, as ACC is an allied organization—and 15 soldiers are sleeping, if anybody can sleep, on deck. They and their equipment of jeeps, motorcycles, trucks and a limited amount of supplies are only part of the cargo. Engineer, medical, signal, ordnance, transport and other branches also are aboard. AMG may not go ashore with the first wave but must be on its heels. Its task

is to take over a city or village as soon as it is occupied.

"You have the money?" the senior officer whispers.

"Sure, I'm sitting on it," a younger officer assures him. Money is as essential to battle as to peace and responsibility for a cool million of freshly printed notes would worry any officer even if it is bulky lire or francs. But more about the money later.

Close to the gun fire

THE Navy's big guns open up and the barrage has started. Planes swarm over, their bombs dropping in the distance. The convoy moves in steadily, barges of the combat units in advance. Dawn breaks with the rattle of machine-gun fire, smoke and explosions from the beach.

The fighting has moved inland before the barge with the AMG unit noses to the shore. The jeep rolls off and streaks for the town a few miles down the beach, loaded with all it can carry.

AMG officers have gone forward in tanks, entering towns with the fighting. One officer captures six Nazi paratroopers. An enlisted man arrived in a town with nine tons of food while the Ger-

vance in the language of the country and divided according to subjects:

1. Announcing the occupation.
2. Specifying what offenses are crimes.
3. Establishing allied military courts.
4. Fixing rates of exchange for the new currency.
5. Declaring a moratorium and closing banks.
6. Annuling previous laws against allies and races.
7. Appointing custodians for enemy and alien property.
8. Fixing a sunset-to-sunrise curfew.
9. Confiscating weapons and radio transmitters.

The town is badly battered but not entirely deserted. Bodies are in the streets and under the ruins. Half a dozen fires are burning, but fortunately do not seem to be spreading.

"Where's the city hall?" an officer asks the first dazed inhabitant. Speaking the language of the country is an AMG requirement. The city hall, whether called a *municipio*, *hôtel de ville* or *rathaus*, is the center of activity in any city, alive or ruined.

A town where AMG does not find a

"He's gone." Such high officials seldom are allied sympathizers.

Inquiries follow for the deputy mayor, chief of police, fire chief, treasurer, engineer, judge, the priest or any other prominent citizen. Some are permanently absent, others until it becomes quieter.

"Here's the fire chief and I'll send for the priest," the policeman explains.

"Get some men and start putting out the fires," the officer orders the man who stepped forward.

"The pipes are broken."

"Then carry the water. Start on the worst. You can't let your own town burn down."

He moves away, snapped out of his trance by a show of authority. Nobody asks whether he was a member of the Fascist party—probably was—but no time to bother when a job must be done. Such tests come later when more permanent administrative officials are selected.

The priest appears with a boy who found him. He has administered to the last of the dying and can advise on a few men of ability and standing to direct the town's affairs. He says a doctor was operating in the hospital and it is terrible. A shell lobs over and explodes down the road, not the last for that day.

"Get some men and start clearing the wreckage out of the main street," the officer orders a man appearing fit for that job. AMG's first duty is to the allied armies and supplies must pass over that road.

Emergencies handled quickly

"AND another gang will start digging the bodies out of the ruins." A sanitary as well as humanitarian necessity. "You'll all be paid for working."

By this time, other officers and men in the AMG unit are arriving.

"Round up the carabinieri and get them back on duty. Perhaps we'll make this one chief, as his old boss probably has run out with the other Fascisti.

"And you put a guard over the bank until we can get a policeman for the job," to an officer.

"We'll send the motorcycle messenger back to the beach with an order for ether and bandages," to the priest. "Perhaps we can get them for the doctor."

This is only the start of an AMG job which differs in every municipality. To prevent hoarding or looting, food supplies must be located and guarded. Bakeries must be opened and given flour and fuel. In one town, an infantry platoon was called to disperse a mob which got out of hand, looting a soap warehouse, of all places. Communications, water and public utilities must be restored as necessary to military operations and health. In brief, order must be brought and business resume its course.

International law holds the commander of an occupied area responsible for the civilian population. That is an established part of war but methods differ. Axis armies issue orders and requisition

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SIGNAL CORPS PHOTO

Proclamations, printed in advance in the language of the country, announce occupation, specify crimes, fix curfew and currency rates

mans still were evacuating, but saved his supplies.

"I've the proclamations," the driver proudly announces, indicating a bundle tied to a fender.

"They'll keep," an officer interrupts. Proclamations delight orderly planners though none pause to read while the bullets are popping. Like money and postage stamps, they are printed in ad-

policeman in front of a city hall, or what is left of it, is a rare exception. In Italy, the carabinieri stuck to their jobs. Their duty was to preserve order.

One is in front of this city hall, immobile in a crowd of men, women and children, some hysterical, others stupefied from the morning's ordeal.

"Where's the mayor?" is the first question.

Tax Relief When Figures Fail

By HERBERT BRATTER

CONGRESS recognizes that many events which do not show on the ledgers may entitle a corporation to lower excess-profits levies

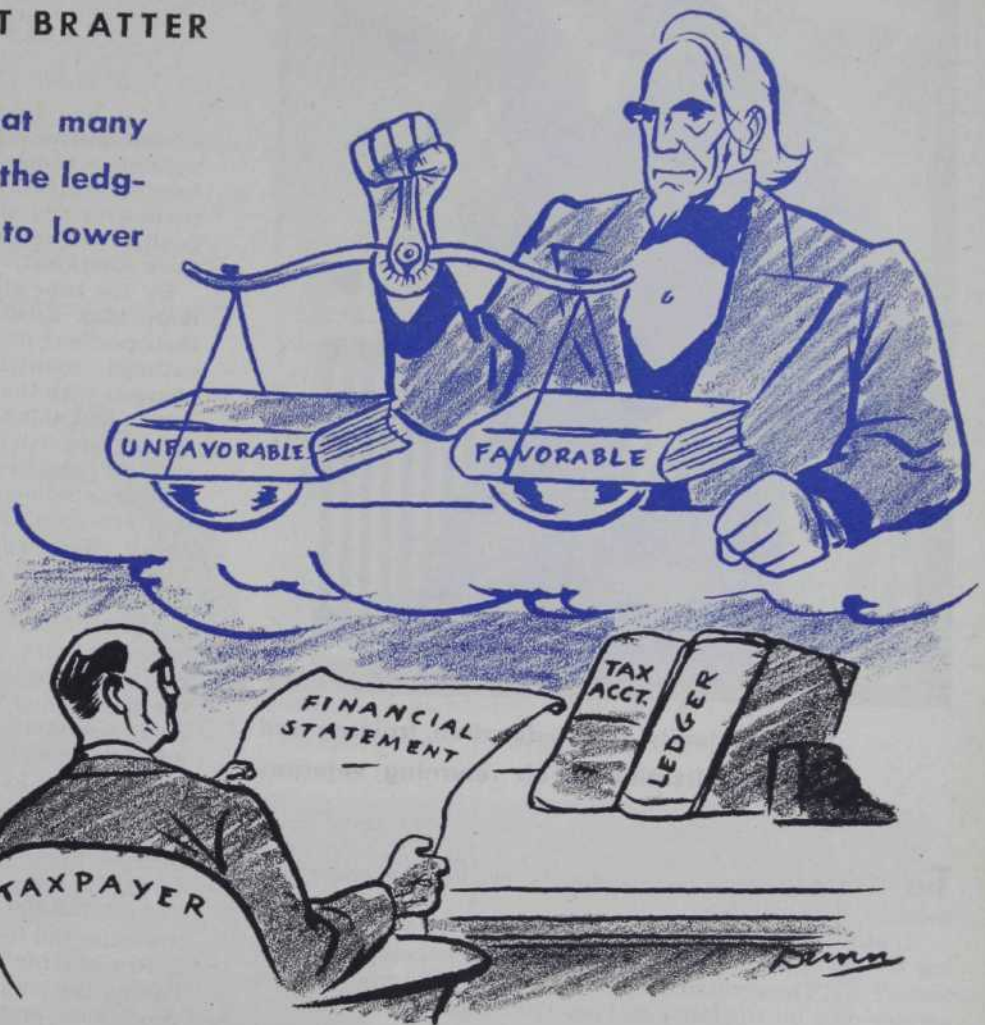
TUCKED AWAY among the 1,000 pages of the Internal Revenue Code is a section which penetrates territory entirely new in American tax experience. In it, Congress and the Internal Revenue Bureau recognize for the first time that many things which affect corporation prosperity cannot be set down in ledgers; that what may appear to be excess profits when viewed solely in relation to the income of the statutory-base-period (1936-39) may actually not be excess profits at all.

The idea has grown slowly. In 1941, recognizing that "physical events" which depressed the base-period-income could reasonably lead to unfair excess profit taxes, Congress altered the law to allow adjustment of the taxpayer's credit because of those events.

A fire which destroyed a taxpayer's plant would be such a physical event. However, a fire which destroyed a customer's plant might also leave its imprint on a taxpayer's income, although it would not show on his books. The steep excess-profits rates enacted in 1942 made it necessary to extend relief to companies suffering from these "economic events" as well as from "physical events." The result was Section 722 of the Internal Revenue Code, undoubtedly the most difficult part of the law to administer.

The difficulty arises partly from the effort to interpret the will of Congress which, while facing the realities of financing a war, wished still to write a tax measure that would be fair; and partly from the fact that Section 722 deals with abnormalities. These abnormalities must necessarily be proved to be abnormalities, the extent to which they are abnormal must be measured, a fair and just tax base constructed on that measurement and an equitable tax determined.

The fact that 30,000 applications for relief under Section 722 have already come in for study by the Bureau's 3,000 men investigating corporate returns indicates that relief would be delayed—maybe for years—even if all cases were clear-cut. Unfortunately few of them



The Government will study all factors in the taxpayer's earnings record before granting relief under Section 722

will demonstrably meet the conditions which Congress had in mind in drafting the Section. Some of these situations, as given in Congressional reports of the time are:

Flood: A certain plant suffered from the disastrous Ohio River floods of 1936 and 1937. The taxpayer's base-period earnings were depressed and it was a candidate for relief under Section 722.

Strike: Because a taxpayer's earnings were abnormally depressed by a strike in 1938 and its competitor's were not, 1938 was an abnormal base-period year and Section 722 relief is indicated in this particular case.

However, if a corporation normally experiences floods or strikes more or less regularly and no unusually disastrous flood or strike affected its base-period earnings, that taxpayer probably

cannot get a refund under Section 722.

New Business: A distillery, organized in 1935, during the 1936-39 base period was engaged in aging its product for later sale. Its earnings in the base period therefore were abnormally low, but increased rapidly after 1939. This taxpayer Congress intended to help through Section 722.

New Product: A company making dental equipment in 1937 added aviation instruments to its line. Thus it changed the character of its business, which in subsequent years flourished. The company is entitled to apply for relief under Section 722, and show a constructive base-period net income on the assumption that it started making aviation instruments two years earlier than it actually did.

New Management: A clothing manu-
(Continued on page 85)



HOBART FROM MONKMEYER

Opportunity, jobs, education, training and hospitalization await returning veterans

THERE HAVE been many gloomy predictions about our soldiers' homecoming:

"If our ten million soldiers and sailors don't find jobs waiting for them when they get back, all hell is going to break loose." . . . "The civilian economy will be ruined when all our service men hit the labor market after their discharge." . . . "If the veterans don't like the way things are going, and good jobs are hard to find, they will all vote for the first scheming *I-promise-the-moon* demagogue who comes along."

These forecasters seem to believe that our fighting men were all recruited from the dregs of society and that, changed by war into merciless hoodlums, they will either come back with itchy trigger-fingers and a yen for slitting throats or as indigent cripples or hopeless neuropsychiatrists.

Such prophets are either extremely ignorant or badly misinformed—or both.

Actually the nation as a whole, remembering the mistakes of World War I, has been paying close attention to the objectives of a successful demobilization:

Opportunity to become self-employed or to start small business enterprises.

Jobs, suitable and worth while for those seeking them.

Education for veterans desiring it.

Vocational Counsel and Training for every member of the armed forces.

Hospitalization, Domiciliary Care and Pensions, under wise and expert administration, for the care of the sick and the disabled.

To attain these objectives, federal, state and local governments have set up various service centers, programs and

How Much Help

administrative offices. Even earlier, before government and legislative bodies had concerned themselves with the problems of returned veterans, local business men and civic leaders had formed community planning groups to study the difficulties our returning warriors will meet and to help with their solutions.

By the time the "G. I. Bill of Rights" had become law, more than 2,000 communities had organized, as part of their postwar planning activities, veteran employment, vocational counsel, and rehabilitation committees, each charged with the responsibility of setting up *workable programs* and aids for demobilized service men. Some of these "plans" are still in the formative or "study" stage; but most are now functioning, rendering valuable assistance to many a veteran home from the war. Incidentally, these committees are gaining valuable experience for the busier days ahead. Honorable discharges have been averaging from 35,000 to 70,000 a month, with the total already well over a million since the start of the war.

All the community plans are designed to function in cooperation with the local governmental veteran-service programs and to supplement such aid by offering to veterans the advice and counsel of experienced, practical business men—something the federal and state programs find it difficult to do.

According to military authorities, present plans are to reduce the size of the Armed Forces by about one-third after the defeat of Germany. From the Army Ground and Service Forces—2,750,000; from the Army Air Forces—1,000,000; from the Navy—none; from the Marines—none. These 3,750,000 officers and men (from a total of 11,300,000) are expected to be discharged at about 300,000 a month.

Priority for discharge will be in this order: First, men having the longest service or having been long under battle conditions, or both; next, those over age 30, with fathers first, then married men with no children, then unmarried men with dependents; then the single chaps with no dependents.

After the defeat of Japan—possibly a year after the surrender of Germany—5,550,000 officers and men, using the same priority procedure, will be discharged. The remaining 2,000,000 are expected to serve in the armed forces for some time after actual fighting stops.

That is the plan. But to plan and to follow plans are two different things. Congress may have pressure brought against it to speed up the rate of demobilization. Nevertheless, if plans are not changed, it is obvious that the war with Japan will end before the first group of 3,750,000 men has been completely demobilized. In other words, after the fall of Germany, there will be no break in the steady monthly discharge of 300,000 officers and men. The total demobilization of 9,300,000 service men will thus have been accomplished within 31 months.

However, this does not mean that the nation will have to find jobs for 9,300,000 veterans within two-and-a-half years.

In the first place, 52 per cent of the Armed Forces—5,876,000 men—are under 25 years of age. Of this group, many had not finished their education when they entered the services. Plenty of them will head for school again, especially when they learn that the G. I. Bill of Rights provides for individual grants of \$500 a year for four years for training and education if passing grades are obtained or satisfactory progress shown. Also a subsistence pay of \$50 a month for single vets and \$75 a month for those married

Will Veterans Really Need?

By DONN LAYNE

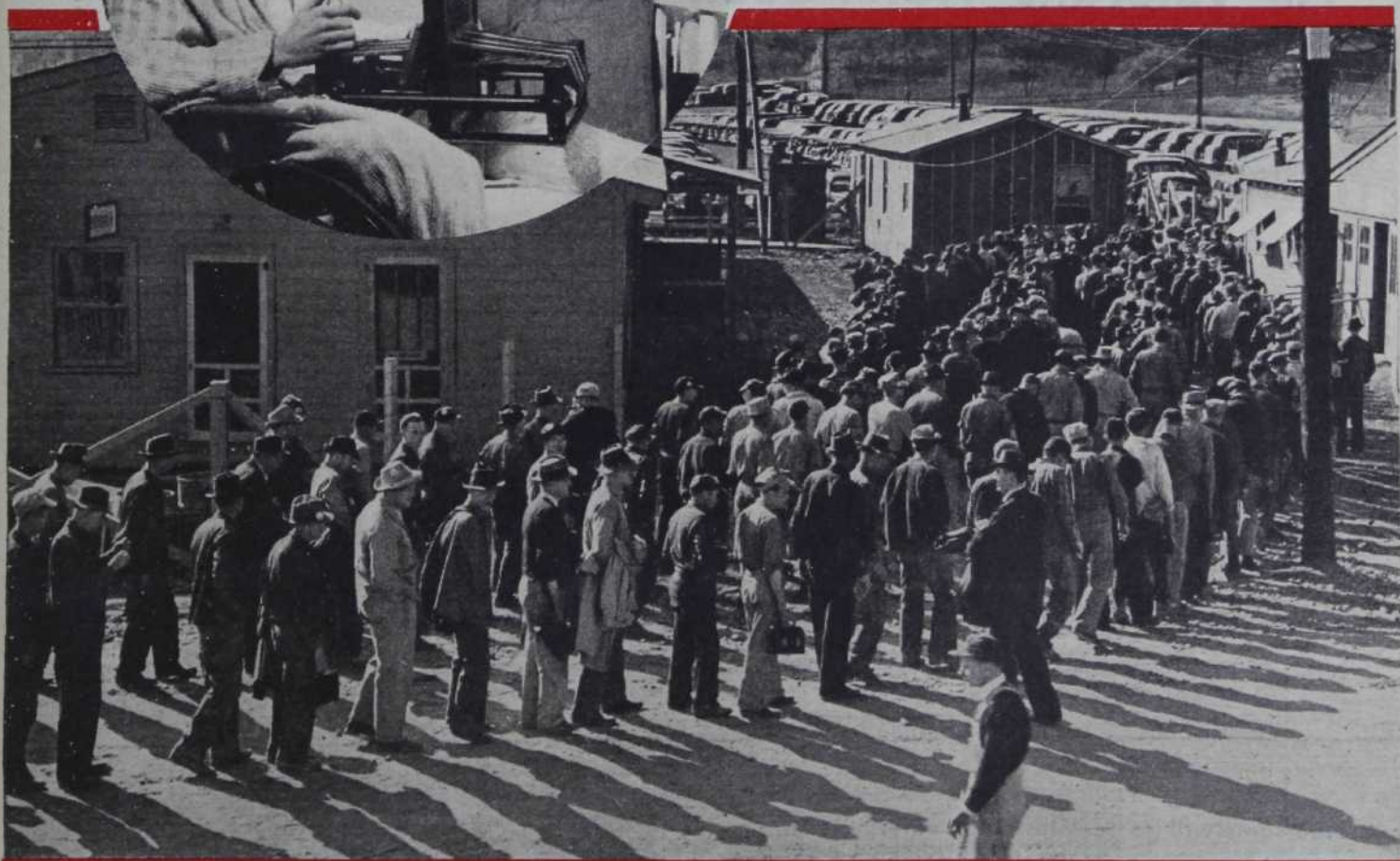
PRACTICAL ANALYSIS of plans already made demonstrates that fears of postwar unemployment among returning soldiers are at least exaggerated

or having dependents is included. This grant is available to all who were 25 or less when they donned the uniform. Older veterans, if able to show that their education was interrupted by the war, are also entitled to this benefit. Educational authorities expect that this grant will send at least 1,000,000 veterans back to the campus. Another 750,000 are expected to take up vocational training of some type. An additional 450,000 will keep our rehabilitation centers (set up at many universities) busy for some time after the war. Thus, 2,200,000 men will be seeking education—not jobs. If parents, vocational counsels and the press do an effective job of showing the advisability of an education as against the first employment that offers itself, the number may be larger.

Others among our fighting men were self-employed before the war and will expect to return to their former activities. How many accountants, advertising men, architects, artists, chemists, chiropodists, dentists, doc-



Correction of a legal technicality will speed reemployment of disabled soldiers



PINNEY FROM MONKMEYER

Women, old people and youngsters, now employed in civilian industry, will drop out as they desire when peace comes, and returning soldiers will find many vacant places in the lines of workers

tors, lawyers, opticians, photographers, carpenters, decorators, real estate salesmen, insurance agents, commission brokers, X-ray operators, plumbers, surveyors, veterinarians and other professional and semi-professional "lone-wolves" there will be is hard to specify, but it is safe to estimate that at least 700,000 of them will either re-enter or begin such pursuits. That is less than ten per cent of the number normally engaged.

Many will make jobs

THE fact that another provision of the G. I. Bill guarantees 50 per cent of loans up to \$2,000 to establish homes, farms or businesses will encourage many to strike out for themselves. It has been estimated that 550,000 service men may be expected to re-enter or start anew such small enterprises as sales and service on airplanes, automobiles and trucks, bicycles and motorcycles, boats, electrical appliances, radios, tires, coal and ice; or stores and shops handling books, clothing, flowers, groceries, meat, hardware, liquor, awnings and tarpaulins, pets and many other items; or services for delivery and trucking, eating and drinking, exterminating pests, fixing guns and locks, or operating filling

stations, funeral parlors, tourist camps or barber shops. Farming, fishing and forestry will by themselves absorb 800,000 operators from the ranks of returning warriors.

Other veterans, because of skill, experience, seniority or civil service rights, will no doubt go back to former, good-paying positions as factory, office or farm managers, chemists, technicians, editors or engineers. The number in this group will possibly exceed 200,000. To this figure must be added all the federal, state and local government employees—the city hall clerks, deputy sheriffs, policemen, firemen and teachers, all the division heads, statisticians, lawyers, chief clerks, economists, inspectors and health officers. More than 1,000,000 who were so employed are now in the military service.

Finally there are the veterans whose dads (or uncles) are waiting for them to come home and "take over"—or at least help with the management of the business. The numbers in this category are doubtful but there are nearly 3,000,000 small business owners in America, most of whom have sons or nephews in uniform. It seems safe to guess that 200,000 of them—not quite seven per cent—will have jobs for relatives.

For these reasons, a grand total of 5,650,000 soldiers will not be seeking employment when they return from the war. This leaves about 3,650,000 who will be in the market for jobs shortly after they get back home—and they will find them!

Of course, reemployment and new employment difficulties are practically nil now. The headaches are expected when readjustments are taking place, when reconversion is going on, and when there may be 10 to 15 men for every job. But that shouldn't bother the veteran very much; he has 14,000 "reemployment committeemen" attached to the nation's 6,400 local draft boards, each of whom is charged with the responsibility of seeing that returned service men receive their rights under the Selective Service Act: "reemployment to the old job if it is still there and the veteran is able to perform his duties."

Employment or benefits

HOWEVER, if no jobs are available immediately, because of readjustment setbacks, every veteran will be able to draw \$20 weekly for unemployment compensation for a maximum of 52 weeks in the first two years after discharge.

But it is more than likely that there will be no need to resort to his unemployment benefits.

Various polls and statistics indicate that, of the total men and women now employed—and there is a vast shortage of labor in many peacetime activities—many do not intend to continue working after the war. Of the 18,000,000 women workers, more than 30 per cent or 5,400,000 expect to quit work. An additional 600,000 persons over age 65 are entitled to quit work and draw their social security benefits; and there are 2,500,000 boys between the ages of 14 and 17, who are now working, but who are not usually a factor in employment. Their employers will send them back to school (or get rid of them) after victory. This summer the number of these boys will exceed 5,000,000. In normal times their numbers never exceed 300,000. These figures indicate that at least 8,500,000 persons will leave the nation's labor force once victory has been assured—and there will be only 3,650,000 veterans to take their places.

Veterans may want a change

OF COURSE, many soldiers will not want their old jobs, or even wish to return to their home towns. That is perfectly natural and understandable. But, if good jobs don't turn up, the old job and the home town may look pretty good. It all depends on the status quo of the individual.

Thus the outlook for the able-bodied veteran seems bright. It's not so bright for the handicapped. Two major difficulties are causing trouble.

First, are the so-called neuropsychiatrics and incompetents discharged from the services or refused induction. Em-

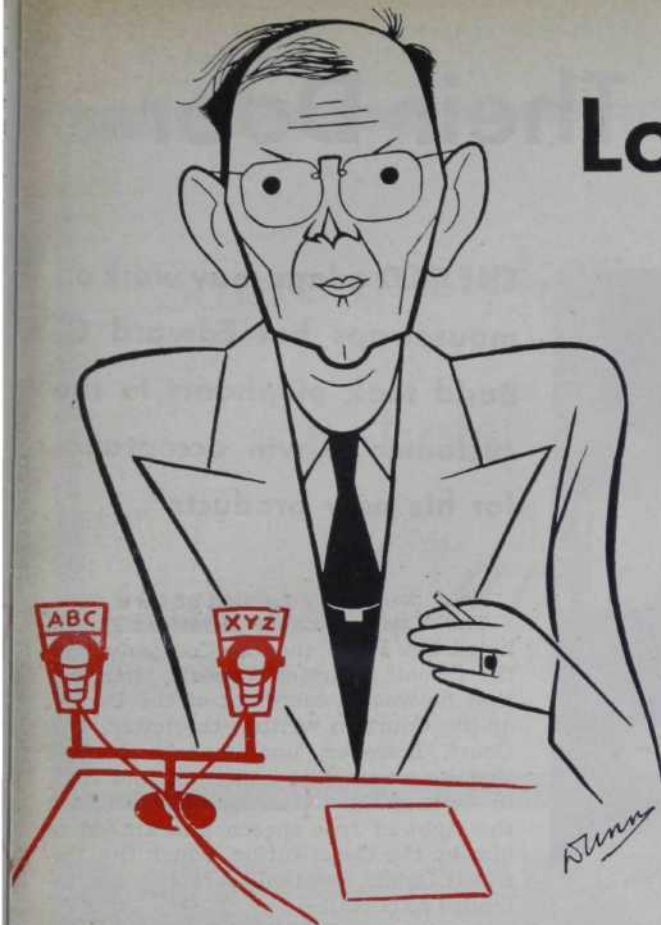
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All Veterans Won't Seek Jobs

Some will seek education	2,200,000
College	1,000,000
Vocational Training	750,000
Rehabilitation	450,000
Some will become self-employed or enter business	2,050,000
Former professions and vocations	500,000
New " " " "	200,000
Former business enterprises	300,000
New " " " "	250,000
Former farming, fishing or forestry	650,000
New " " " " " "	150,000
Some will have assured jobs awaiting them	1,200,000
Former managers, salesmen, engineers, editors, skilled workers, etc., in Commerce, Industry and Transportation	200,000
Former administrators, teachers, clerks, firemen, peace officers, etc., in state and local governments	500,000
in federal Government	500,000
And some will go back to family enterprises	200,000
Veterans who will not be "thrown on the labor market"	5,650,000

Lord of Sound, Glory Bound

By JOHN CARLYLE



CHAIRMAN J. L. FLY of the FCC applies lessons learned on the courthouse steps to the problem of building a communications net

PEOPLE talk about James Lawrence Fly.

One day you hear that when—and if—a worldwide communications network is set up, he will be the American member.

The next day you read that he is about to resign as chairman of the Federal Communications Commission.

Either of these may be right—or neither. However, as this is written, Mr. Fly is still chairman of FCC. If he resigns before you read it, please substitute the past tense where necessary but do not discount Mr. Fly. You will meet him again in some other spot. It will be a tough spot because Mr. Fly loves tough spots.

He is not merely the chairman of the Federal Communications Commission, overlord of all message sending by wire or radio. He is the Commission. It was reported that Commissioner Craven, naval engineer, experienced, brilliant, planned to resign. He could not get along with Mr. Fly.

"He says," Craven is reported to have said, "that we will iron out our differences at the next meeting. But he never calls a meeting."

Mr. Fly helped the Western Union and the Postal to merge. The word "help" may be a semantic in that connection. He has held back the manufacturers of Frequency Modulation radios. He says the time is not ripe. They say it is. He has okayed a variety of regulations that station owners and broadcasters say have driven them mad. Fly points out that the networks are making more money than they ever dreamed of when he broke up what he calls their monopolistic practices.

In any case he is boss.

Much of his boyhood was spent on the sunny steps of the courthouse in Dallas, Texas. His brothers were in politics and he grew into various small time jobs.

The finest school of practical politics in the country is on the steps of the courthouse. Any courthouse. Young Mr. Fly learned what was done, to whom it was done, and how to dodge it. He became, among other things, a master of the art known as the change of pace. He is likely to appear to be rather diffident. He curls his six feet, three, around in his chair. His voice is low. His blue eyes are friendly. He runs his hands through his somewhat moth-eaten and originally sandy hair. (The adjective "moth-eaten" is his own. There's a reason for it.) The visitor sees him as just a big boy from the country, for all of his 15 years in highly responsible government service.

He can also be the most arrogant, offensive, hot-tempered, unfair, ruthless man who ever stamped into a committee room. The adjectives are provided by men who have seen him in action. Not by this reporter. The reporter, in fact, has been exposed to Mr. Fly's naive friendliness and felt himself melting like tallow. An attorney who found himself on Mr. Fly's side in a recent contest at law, and profited by the fact, admired the Chairman's mastery of the law, the facts and his speed in action:

"I rather like him," he said. "But he's a savage."

He has been under almost constant attack as chairman of the FCC. The law under which the FCC operates is admittedly faulty. A vague phrase permits the Commission wide freedom of action for "the public interest." When the law was enacted, not many could see more than dimly into radio's future. Now there are 900 radio stations, ranging from the "coffee-pots" to stations that can send half way around the world. There are four major networks, big money, politics, innumerable problems and interferences; jealousies and 137,000,000 people listening in. The Commission is still the judge of what is or is not "in the public interest."

The station-owner who does not agree that a given act of the Commission is in the public interest may, of course, appeal to the courts. He may be afraid to do this. Under the terms of the Act each station may be licensed for no more than three years. The Commission's policy is to license for no more than two years. If, on review of the station's history, faults are found which are against the public interest, the renewal of the license may be refused. A station worth \$1,000,000 in the open market would be reduced to the selling price of its equipment at second hand. Therefore, the station owners keep anxious eyes on the broadcast scripts:

"This gives the FCC the power of censorship through fear," is the charge.

"We have never ruled a station off the air," says Mr. Fly, "except in three or four cases of flagrant offense. The public approved our action in these cases."

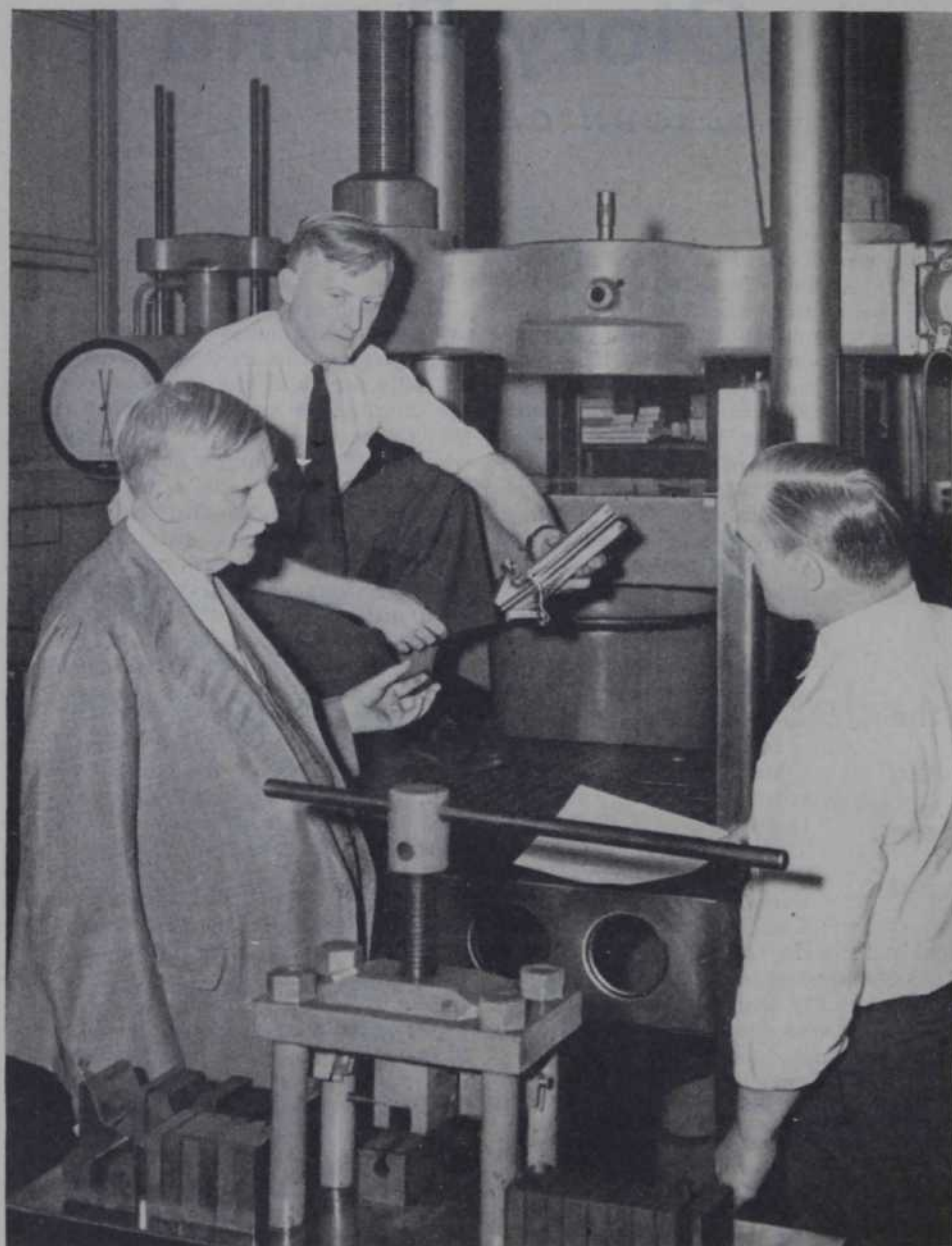
Radio influenced by FCC

THE opponents insist that station owners, facing the possibility of great loss, are likely to favor the side the FCC presumably likes best. Senator Wheeler of Montana points out that during the "court packing" fight of some years ago four networks gave plenty of time to supporters of the Administration, but when he asked for time in which to answer he was able to get a hearing over only one-half of one network. He did not

(Continued on page 70)

He Beat a Path to Their Door

By HERBERT COREY



Mr. Budd watches laboratory tests of stainless steel in one of the company's special machines

EDWARD G. BUDD once said: "There is no one powerful enough to make the Budd Company quarrel with its employees."

There are 17,000 of them in Philadelphia. In Detroit, 4,000 more. Those in Germany are not working for Budd now.

From 1933 to 1944 there had been a union in the Budd factory, the Employees Representation Association, whose membership was restricted to employees of the Company and through whom the employees had "bargained

collectively" and had their grievances settled. In 1941, the C.I.O. attacked this union as "Company dominated" and the National Labor Relations Board so decided. When the courts finally sustained this decision in February, 1944, and the Company "disestablished" the Association, Mr. Budd wrote to all his employees a letter pointing out that they had a three-way choice:

They could have no union.
They could affiliate with an outside union.

THE OLD adage may work on mousetraps but Edward G. Budd took elephants to the customer to win acceptance for his new products

They could have a union of their own. The National Labor Relations Board haled Mr. Budd and the Company into the Circuit Court of Appeals, charging that he was in contempt of the Decree of the Court in writing the letter. The Court, however, unanimously decided that he was not in contempt and that, in writing the letter, he had exercised the right of free speech guaranteed to him by the Constitution, which the National Labor Relations Act was not intended to curtail.

As a result of the Budd case it is possible that a new theory of the employer's right of free speech in dealing with his employees is in the making. William B. Barton, secretary of the Labor Relations Committee of the Chamber of Commerce of the United States wrote that: "It appears possible that there is emerging from the Courts a principle by which the First Amendment (of the Constitution) protects an employer's mere expression of opinion about unions, but the protection does not apply if the utterances are intipidatory or coercive; further, that the protection may not apply if the utterances are made as a part of a related background of anti-union conduct."

Sources of labor trouble

IN THE BUDD case the relations with employees had been notably good. The workers were well paid.

At one time, some years ago, Mr. Budd said:

"Labor troubles always are the fault of management."

Today, he thinks there possibly may be exceptions to that statement, but, by and large, he is inclined to believe that labor troubles do not develop in intelligently managed organizations.

He thinks the relationship between employer and employee is essentially a personal one. Authority is necessarily vested in the employer but, if mutual respect exists, differences of view and of temperament may be sympathetically dealt with and eventually solved.

"A manager is governed by certain

TO EMPLOYERS: Because *knowledge* is the greatest foe of cancer, it is important that everyone know the facts below.

On request, Metropolitan will gladly send you enlarged copies of this message for posting on plant or office bulletin boards.

Some mistaken beliefs about *Cancer*



X Misbelief #1... THAT CANCER IS A HOPELESS DISEASE

Far from it! Thousands of people have been cured of cancer. Many more are being cured now than ever before. This is the result of greatly increased knowledge and skill among doctors... of better facilities for diagnosis and treatment... of greater public realization that *successful treatment depends largely upon early recognition.*



X Misbelief #2... THAT ALL LUMPS AND GROWTHS ARE CANCERS

This, of course, is not true. The symptoms that *may* indicate cancer are often due to other causes—only a doctor can decide. A leading cancer clinic reports that, of the women who came for examination because they suspected cancer, only 11½% actually had the disease. The important point is that all of these women, whether or not they had cancer, received immediate professional attention and avoided needless worry.



X Misbelief #3... THAT CANCER CAN BE CURED WITH MEDICINE

It cannot! Beware of quacks who promise quick cures using unproved methods. *The only known methods of treating cancer effectively are X-rays, Radium, and Surgery, alone or in combination.* In skilled hands, these proved methods are successfully treating cases which, not many years ago, would have been judged hopeless. Getting to the doctor early is *your* greatest contribution toward cure.

X Misbelief #4... THAT CANCER STRIKES WITHOUT WARNING

Cancer *does* give warning! Everyone over the age of 30 should know these common signs of cancer:

- Any unusual lump or thickening, especially in the breast.
- Any irregular or unexplained bleeding.
- Any sore that does not heal, particularly about the mouth, tongue, or lips.
- Loss of appetite, or persistent, unexplained indigestion.
- Noticeable changes in the form, size, or color of a mole or wart.
- Any persistent change from the normal habits of elimination.

Send for Metropolitan's free booklet, "A Message of Hope About Cancer."

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1 MADISON AVENUE, NEW YORK 10, N. Y.



limitations. He must deal justly not only with his employees but also with the State and his customers. This is impossible if his business does not earn a profit. He must not be influenced by fear. He cannot succeed unless there is whole-souled cooperation on both sides. This must be willingly contributed. It cannot be gotten by force. It cannot be continued unless the employee is satisfied. It cannot be gotten by close bargaining by the employer."

He holds that the ability to lead men in industry is rare:

"We managers expect to be highly paid. If there is strife and ill-will, the manager has proven his incompetence. He should give way to some one who knows how."

The miracle-dealers in American industry are such men as Ford, who put an explosion on wheels and made the country over, or the Wright Brothers, who gave the world a new form of transportation, or Alexander Graham Bell who perfected the telephone. Mr. Budd represents another class of industrialists. American progress has been mostly due to the men who have acted on the principle that they can only take out in proportion to what they put in. In the long run, the business man is governed by the law of supply and demand. Some-

spected. His labor relations seem to be built on that small-town pattern. He regards his men as individuals.

"They differ in their deserts. They are not slaves. They are men. One working man may be a bargain at two dollars an hour. Another isn't worth 20 cents. Don't ever permit your judgment to break down men into equals. Keep the best at his best and try to build the others up to that standard."

He went to work in a little machine shop when he graduated from high school. Working with machines was, probably, just a job at first; it became a passion. When he had gone as far as he could in the little shop he got a better job and a share of the profits in a larger factory in Philadelphia. His new employers had been making car seats and the young fellow designed a better one.

That opened the way for him.

Soon he was making real money.

He looked at the first automobiles and saw that he could improve them.

They were not selling very well. America was still in the "get a horse" period. Women wore veils when they took a chance on the smelly things. Budd said:

"If we make better cars more will be sold."

The logic of economics was to com-

But these things were trade risks. Forward-looking manufacturers bought hardwood forests to make certain of a plentiful supply of the right kind of timber. The wood was magnificent.

Budd foresaw the need for stronger, safer automobiles built of steel wherever possible—and built in mass production to drive down costs.

His employers shook their heads. They were doing very well with wood. More people were buying more cars each year.

"Even if you are right," they may have replied, "if we cannot sell steel wheels and bodies why should we build them?"

Risking \$70,000

THE ARGUMENT was logical, but it did not convince Mr. Budd. He had saved \$70,000 from his wages and his share of the company profit. No one had ever given him anything. That was a comfortable fortune for a young mechanic in those days, but he was not primarily interested in money. He wanted to do things. He quit being an employee—quit forever—and took his \$70,000 into a risk venture. He rented a small shop and spent his little capital for power tools. The press with which he proposed to stamp out metal parts was so tall he could not get it into the shop and he rented a circus tent. The First War came on in due course and good fortune beamed upon him. He had been experimenting with steel wheels developed in France by Michelin. The United States Army heard about these wheels. A set was ordered for the car being used in France by General John J. Pershing. At times it was driven by a good-natured youngster who had learned about speed on the dirt tracks at home. His name was Eddie Rickenbacker. General Pershing, his driver, or some one else, liked the new wheels.

But individual preferences meant little in those days. The automobile industry was a hard customer to convince. The industry's engineers were sold on wooden wheels and wooden bodies.

So Budd decided that his preaching would have to take on a circus character. He would try some stunts.

He hired an elephant and the young woman who went with it, and the girl made the elephant stand on top of one of Budd's new-fangled passenger cars. The car body did not fail. But the car manufacturers did not yield. They observed with some acrimony that they had no customers who would stand elephants on the roofs of their cars.

Mr. Budd then tried a new idea. Soon newspapers were filled with stories of how he rolled wooden cars and then steel cars off cliffs. The wooden cars were smashed. But the steel cars would be driven away. The demonstration was very satisfactory to Mr. Budd, but the market still yawned at him.

Then John and Horace Dodge left the Ford Company in Detroit and began to make a car of their own. As they had been both automobile builders and work-



Mr. Budd presents members of the War Working Grandmothers of America with certificates showing their part in the war

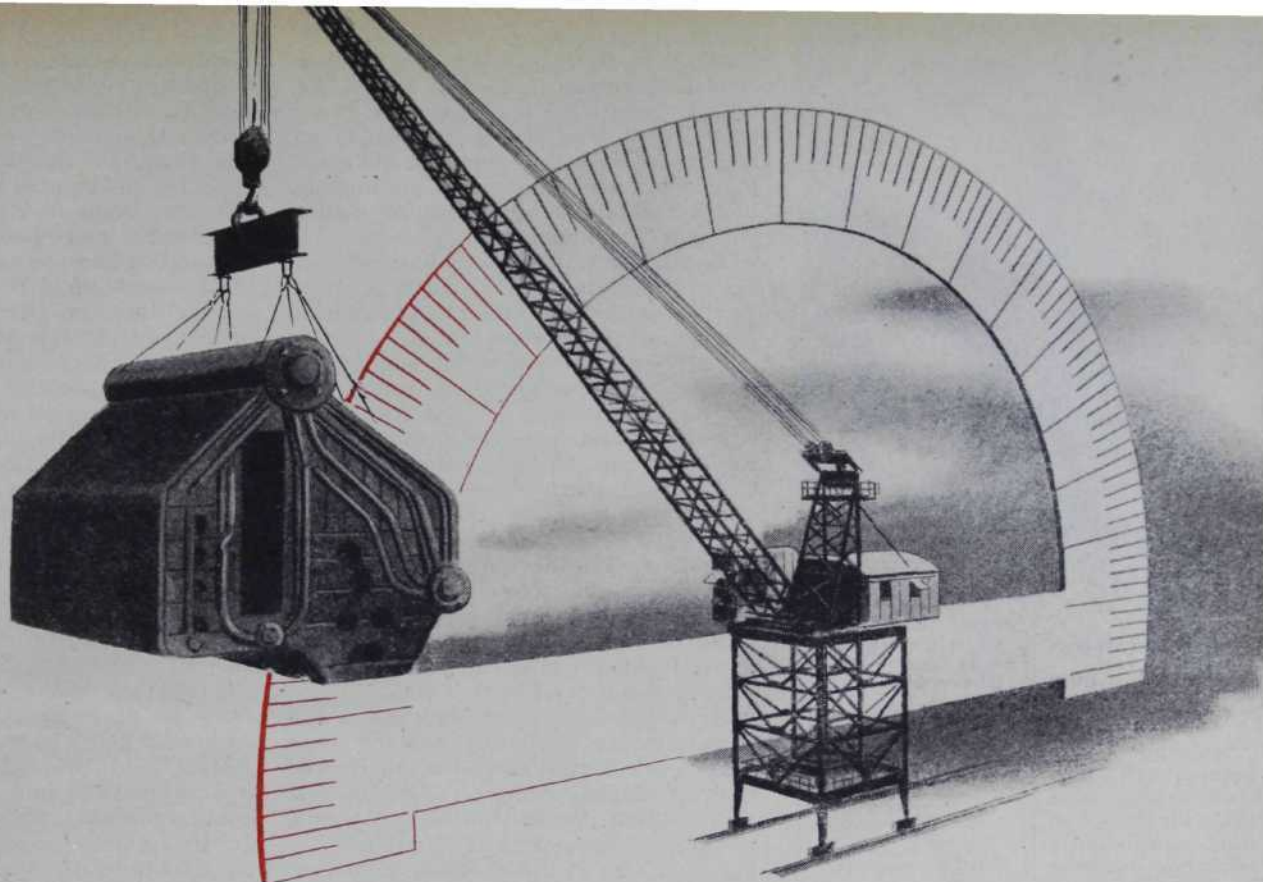
times he may have to create a demand in order that he may supply it.

That's what Mr. Budd did.

He was born in the little town of Smyrna in Delaware. A growing boy in a small town gets a very practical view of human relationships. A loafer is a loafer and an honest man is to be re-

plete the story. Better cars were to force the building of better roads which would compel the making of more and better cars.

The first cars had wooden wheels and bodies. The bodies squeaked under the stresses of the rough roads. Sometimes the wooden wheels dished on the curves.



Crane operators **CUT OUT COSTLY TIPS**

Giant traveling cranes—such as shipyards use to swing heavy sections into place—had one unfortunate weakness. When the heavily loaded boom was extended too far, the whole structure sometimes toppled over under the terrific strain.

Even experienced operators couldn't tell just when the danger point was reached. Workers' lives were being endangered, vital equipment sometimes wrecked. Some type of automatic safety control was needed.

After careful study, Westinghouse engineers applied a simple magnetic device called a "strain gauge" which they had developed to meet a

similar problem in steel mills. It is mounted on structural members of the crane. Any excessive stress in the steel varies an air gap in the gauge. This in turn controls an electrical circuit which automatically shuts off power to the hoist, before torques sufficient to produce tipping are encountered.

Eliminating costly tips on giant cranes is perhaps an unusual assignment for electrical engineers. Yet it's a typical example of the broad scope of Westinghouse Engineering Service.

Your nearest Westinghouse office is a W.E.S. headquarters. Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

J-91047

HOW **W.E.S.*** CAN
HELP YOU PLAN . . .

A nationwide corps of Westinghouse engineers offers you broad electrical and production experience gained through years of working with *your* industry.

These men can give you valuable assistance on *product development, rehabilitation of existing equipment, maintenance, material substitution.*

Put this service to work on your present problems . . . let these men work with your engineers in planning for reconversion to postwar needs.



Westinghouse
PLANTS IN 25 CITIES OFFICES EVERYWHERE

* WESTINGHOUSE ENGINEERING SERVICE FOR INDUSTRY



The Difference may be only
a few Salt Tablets

.. and they cost less
than 1 cent a man
per week

Proper body tone requires salt. Loss of salt through sweat can easily change an alert, comfortable worker to one who is miserable, careless.

Loss of salt dehydrates the body, thickens the blood. The results are Heat-Fag, inalertness, accidents, heat prostrations.

The preventive is water and salt. Water alone won't do it. Under hot, "sweaty" conditions water alone dilutes the blood and causes heat cramps.

Industrial physicians with America's greatest manufacturing plants have found that the easy, simple, economical way to provide essential salt is Morton's Salt Tablets at every drinking fountain. A tablet with every drink of water is all that's necessary to prevent Heat-Fag, heat cramps, heat prostrations — to keep workers alert, at peak production.

This Is What Happens
When Sweating Robs
the Body of Salt . . .



SALT LOSS EFFECT
 1% LOSS - SLIGHTLY
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QUICK DISSOLVING
(Less than 30 Seconds)

This is how a Morton's Salt Tablet looks when magnified. See how soft and porous it is inside. When swallowed with a drink of water, it dissolves in less than 30 seconds.

Case of 9000, 10-grain salt tablets . . . \$260
Salt-Dextrose tablets, case of 9000 . . . \$315

MORTON'S DISPENSERS

They deliver salt tablets, one at a time, quickly, cleanly — no waste. Sanitary, easily filled, durable.

800 Tablet size . . . \$3.25

Order from your distributor or directly from this advertisement . . . Write for free folder.



MORTON SALT COMPANY, Chicago 4, Ill.

ers in metal, the idea of a steel body made sense to them. They bought their steel bodies from Budd. The Dodge car made a reputation for toughness. Presently Budd was selling thousands of steel bodies. As time went on his companies became among the automobile industry's largest suppliers of bodies and wheel components.

As a pioneer, it was only natural that his restless urge for something new should lead him into the utilization of a new metal—stainless steel.

In 1910 a British scientist, engaged in one of the experiments in which scientists delight, had alloyed steel with chromium and created a metal that would not rust. Unfortunately it had little strength. During the First War, one of Krupp's scientists in Germany remembered it and added nickel to the compound. The new alloy had plenty of strength but it could not be welded because extreme heat weakened it. It could be rolled in sheets and used for flashy fronts for buildings, and for table ware and scissors. But that was all.

Mr. Budd loves steel. This was a desecration. The new alloy was for some purposes a better steel than had ever been produced, stronger, incorruptible and brilliant. What was needed was a method of fabricating it. Mr. Budd set his engineers at the problem of finding a method of welding which would not destroy the characteristics of the alloy. They evolved the "Shotweld" system. Controlled flashes of high tension electricity were shot through lapped sheets of stainless steel, fusing them so rapidly that the steel was not harmed. The solution of the problem was in the control exercised automatically over the amount of current used and the time the welding heat was turned on.

Airplanes had been well advertised by

the war so Mr. Budd first tried out an amphibian airplane of stainless steel. People said it would twist to ribbons under the stress of flying. It was flown all over this country and a part of Europe. It did not fail. But no sales were made. No one wanted planes then.

So Mr. Budd had it flown back to Philadelphia and—perhaps as a monument to blindness or as a preview of the future—set it up in front of the Franklin Institute on Benjamin Franklin Parkway. It stands there to this day.

When the depression came along in 1929 most important people said that all financial activities had come to an automatic stop. People "had no penny, could not buy any," in the words of the old adage. Budd had a big factory on his hands, and a crew of trained employees and he felt that they must be kept at work. He thought there might be a market for stainless steel passenger trains for America's railroads. But they imperatively refused to buy. Railroad passenger traffic had been falling off. There was talk that the automobile would take away so much traffic that the roads could only carry passengers at a loss.

Mr. Budd proposed reversing this trend by putting into service new, modern, light-weight, stainless-steel passenger trains which would attract business back to the railroads. He argued that, if train travel were made attractive, people would flock back to the rails. He also insisted that lighter weight trains, of stronger structure, could be operated at higher speeds and less cost because of savings in fuel and maintenance. The greater speeds would permit faster schedules, and enable fewer cars to serve regular runs, thus saving in first costs.

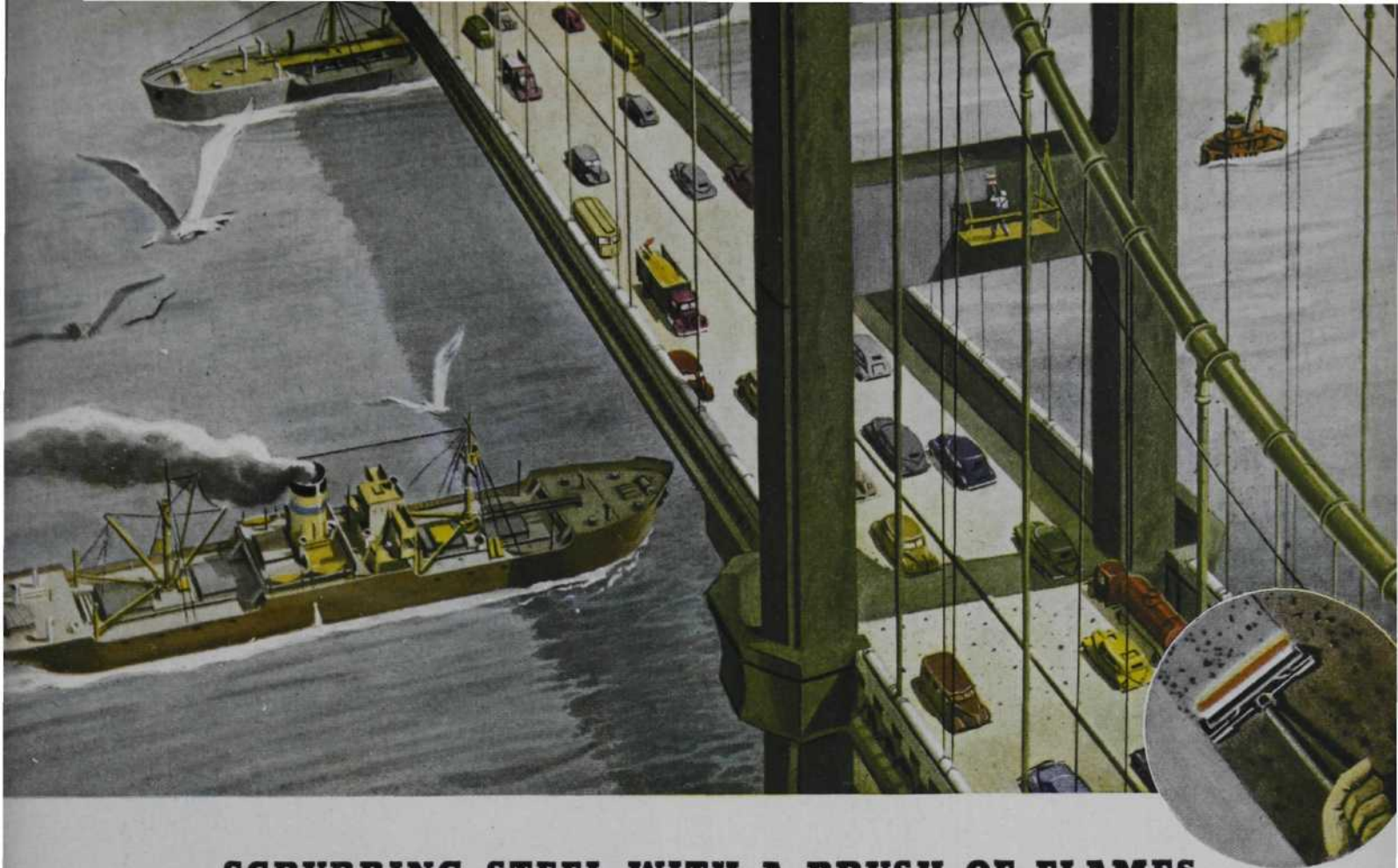
"But your trains are not safe," said the railroad chiefs. "These little light



One Man Handles the Harvesting

To simplify harvesting and threshing, a five-foot model combined harvester-thresher is now made which has all the controls within reach of the tractor operator. This combine takes power off

the tractor or can be equipped with an auxiliary engine. It is adjustable for use with soy beans and a number of grains. Weed seed removers and other attachments are available.



SCRUBBING STEEL WITH A BRUSH OF FLAMES

THE SIMPLE process this man is using is called "flame-priming." It was developed by THE LINDE AIR PRODUCTS COMPANY.



When the fiery "bristles" of oxy-acetylene flame sweep over steel, the intense heat causes scale to expand and pop loose. This heat thoroughly dries the surface and consumes or neutralizes any oil, rust, and other foreign matter that may be present.

Applied to steel just before the first coat of paint is put on, "flame-priming" makes paint go further and last longer, and makes painting a more permanent means of preventing corrosion.



Oxygen, acetylene, and many machines and techniques for treating, cutting, and fabricating metals have been made available to industry for years by LINDE and other Units of UCC.

FLAME-PRIMING is used on . . .



. . . and wherever steel must be painted

Architects, public officials, consulting engineers, production managers, utility executives, contractors, educators and designers are invited to send for the non-technical picture-caption booklet, N-8, "Linde Oxy-Acetylene Processes." This booklet shows the wide range of Linde methods for cutting, joining, forming, treating, and cleaning metals. It also contains elementary information on the essential products . . . Linde Oxygen, Prest-O-Lite Acetylene, Oxweld Apparatus, and Union Carbide.

BUY UNITED STATES WAR BONDS AND STAMPS

UNION CARBIDE AND CARBON CORPORATION

30 East 42nd Street  New York 17, N. Y.

Principal Units in the United States and their Products

ALLOYS AND METALS

Electro Metallurgical Company
Haynes Stellite Company
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CHEMICALS

Carbide and Carbon Chemicals Corporation
ELECTRODES, CARBONS AND BATTERIES
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The Oxweld Railroad Service Company
The Prest-O-Lite Company, Inc.

PLASTICS

Bakelite Corporation
Plastics Division of Carbide and Carbon Chemicals Corporation



It takes tons of PAPER to make life-saving Drugs

As our fighting men go into battle, they carry sulfanilamide powder contained in sterilized envelopes—*paper* envelopes.

Indeed, *paper* guards life-preserving drugs all the way back to the basic ingredients. *Paper* identity cards label each material in a drug plant. *Paper* work orders, like prescriptions, give instructions for compounding the drugs. And *paper* control slips insure absolute accuracy in manufacture.

In the drug industry, where precision and sanitation are paramount, *paper* is an essentiality. So much so that the industry requires more than 40,000,000 pounds in a single year.

**KIMBERLY
CLARK**
CORPORATION
NEENAH, WISCONSIN

Levelcoat* PRINTING PAPERS

While conserving America's critical resources in every way possible, Kimberly-Clark is producing the finest quality Levelcoat Printing Papers that can be made under wartime limitations.



SAVE WASTE PAPER—Paper is one of the nation's most critical materials. Help alleviate the paper shortage by making full use of each piece and by having all your waste paper collected regularly.



cars of yours would crumple like tin cans—they would not stand up—they would bounce off the rails—people would be afraid of them . . .”

Eventually Ralph Budd of the Burlington Road took a chance with the pioneer Zephyr and learned that the American people were in the mood for something new in transportation. One new train followed another until Budd streamliners were running on most of the principal roads. Today there are more than 500 stainless cars in 50 shining trains and orders ahead for more. The only one in the Budd yards today is only half finished. The day the Japs fired on Pearl Harbor the Government said to Budd:

“Hold everything. We need you and all your men.”

So Budd abandoned the manufacture of trains, automotive parts and truck trailers and plunged into war work—shells, bombs, planes, structural parts for naval vessels, and ordnance.

The first bazooka projectiles and the rifle grenades were made by Budd. Not long ago he launched the “Conestoga,” a stainless steel freight-carrying plane, which can be loaded by running a truck up a ramp that drops down from its stainless steel hull.

Ready for new wants

THERE ARE other ideas in the blueprints on his desk which will eventually develop into the things which he hopes will keep his men and women working. He is no pessimist. He seems to foresee so many things America will want.

Most of the things that he, individually, is thinking about will be made of stainless steel.

Mr. Budd is an individualist. He likes people. Once he knew almost every man in his factory by his first name. This is no longer possible, but even today men who are in the Army or Navy drift back to the Budd factory to visit on their leaves, because the relationships there were unusual. The men were definitely proud of being members of the Budd force, and he did not willingly employ “a man with whom I would be unwilling to sit down.” If that seems to reflect labor “policy,” the inference is wrong. There were no hard and fast rules for hiring and “releasing” in the Budd plant before the war.

No age limits were drawn. Mr. Budd likes to have a certain proportion of middle-aged men working for him. The proportion is necessarily governed to some extent by economics of the situation, but he thinks the older men add stability to the force, the younger men virility. The youngster who can pass the sifting process of the personnel department is likely to have ambition and stamina and may grow to fill a leading place in the organization.

Mr. Budd looks forward to new employees remaining with the company for many years.

“It is better,” he says, “that the leading positions should be attained by those of our own people rather than by those

Are You Doing *Financial* Postwar Planning?

Will you actually have the needed cash for reconversion?

MANY manufacturers . . . including some whose working capital position is the best in their history . . . are going to find themselves short of ready cash before income from civilian production is flowing in.

They're going to need cash to reconvert or rebuild plants, tools, equipment . . . buy supplies and materials . . . meet payrolls, taxes, sales and advertising expenses. It's going to be a real problem—money flowing out week after week . . . flowing out faster than wartime assets may become liquid . . . and with no income from sales for many months, perhaps a year or more.

Plan Your Cash Requirements Now

It's not safe to *assume* that you'll have all the cash you'll need when your green light comes. Give your reconversion financial requirements the same advanced thinking and *planning* you've given production and merchandising. Plan *now* what cash you will need during your transition period. Plan *now* at what points on the road you will need it. Decide *now* what cash you can be *absolutely certain* of having *on time* from your own working capital. Plan *now* where the balance is coming from. Then you'll *know* you'll be able to operate successfully till your product reaches the market and brings you returns.

Over A Billion Advanced Since Pearl Harbor

Farsighted manufacturers, including some of the biggest, have done just such intelligent financial *planning*. They've *planned* for the outside cash they may need, when and if they need it. Since Pearl Harbor, Commercial Credit has advanced more than one billion dollars to manufacturers and wholesalers. *And Commercial Credit is equipped and ready to exceed that record in the coming transition to civilian production.*

A Commercial Credit representative will be glad to sit down with you and help you analyze *your* financial reconversion needs . . . and plan for them. He will explain how Commercial Credit is equipped to lend thousands or millions for any sound business need . . . to finance reconversion . . . to give your business more working capital . . . to make tax or renegotiation payments . . . to buy other companies, etc. Address your inquiry to Mr. F. M. Nicodemus, Vice-President, Commercial Credit Company, Baltimore 2, Maryland. You will receive prompt attention.

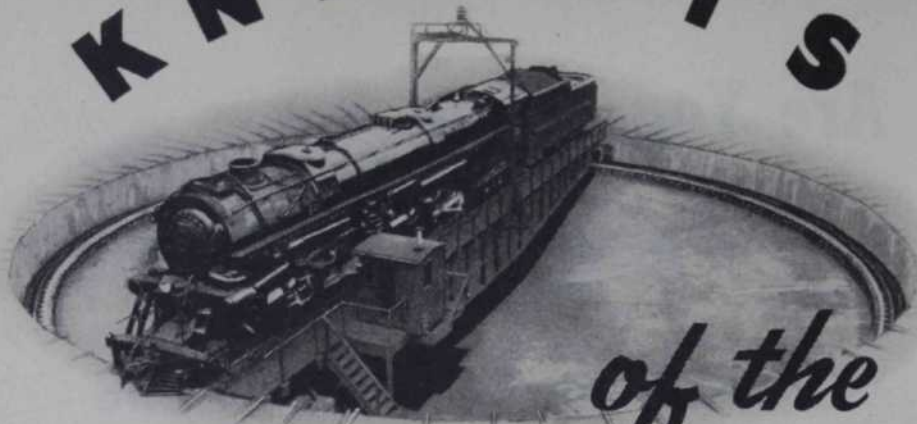
Commercial Credit Company Baltimore 2, Maryland

Commercial Financing Divisions:

New York Chicago San Francisco Los Angeles Portland, Ore.

Capital and Surplus More Than \$65,000,000

KNIGHTS



of the ROUND TABLE 1944



Remember the stories of "The Knights of the Round Table" — those armored warriors of legend who mounted "fiery steeds" and dashed hither and yon to perform deeds of chivalry and mercy! They are sagas of service that have kindled the imagination for generations.

Today, we have other "knights of the round table" — not legendary, but real . . . powerful railroad locomotives that are rolling continuously off "round tables", speeding over heavy rails of steel to every part of America — on vital missions of service.

They are the power that is keeping tens of thousands of trains rolling day and night — for war; the power that is delivering to ports the mountains of machines, munitions and supplies which our fighting men and our fighting Allies must have to smash on against the enemy at full invasion speed.

To its mighty array of "knights of the round table" the Norfolk and Western, within recent years, has added 146 new locomotives . . . locomotives that are among the most modern and powerful in the world . . . designed and built by N. & W. forces in N. & W. shops. The Norfolk and Western is proud of these mighty "knights" of power — for they are rolling as never before, performing a service that is helping to speed the day of Victory.

BUY MORE WAR BONDS

Norfolk and Western

RAILWAY

PRECISION TRANSPORTATION

who have given their best years to some other company."

No race or color lines are drawn. Experience has shown that a Slav is better for some types of work than an Italian. The man is always fitted to the job. He may have a physical handicap but he is not arbitrarily ruled out on that account. He may prove to be a more satisfactory worker than the hale man at his elbow, because he may have had the experience of being turned down because of his handicap. An applicant for work is always given a thorough physical examination by a competent physician. Mr. Budd believes that—

"A physician, by the study of a man's physique—mind, bones, flesh, spirit—knows best how to utilize his efforts in directions in which he can be successful. His talk with the applicant creates an atmosphere of friendly confidence. No unpleasant exposure is ever required."

Dr. E. H. McIlvain was responsible for the personnel department for years. He has had a wide experience as a working man and as a physician.

"He is able to place a man in a position where he would not be a misfit and his spirit would not be broken. The psychologist, or the reformer, is likely to form judgments and lay down courses based on his desires rather than on his knowledge of the capacities of the man he is analyzing. This study has been neglected. A great profession could be developed here."

Wives have rights

MR. BUDD likes food. So the Budd cafeteria is locally famous. Only a strong man could eat a quarter's worth of the five-cent dishes.

The Budd organization is a great believer in the sanctity of the pay envelope. No deductions are ever made, unless required by law. The company pays the city wage tax for each worker. Mr. Budd thinks that the envelope should get home to the wife untapped. She may have plans that involve every quarter of it and a deduction would upset her budget. Some might say that her disappointment is none of their business. Mr. Budd knows better. It is very much his business. A first rate man is fairly certain to have a first rate wife and her plans are of the utmost importance to her.

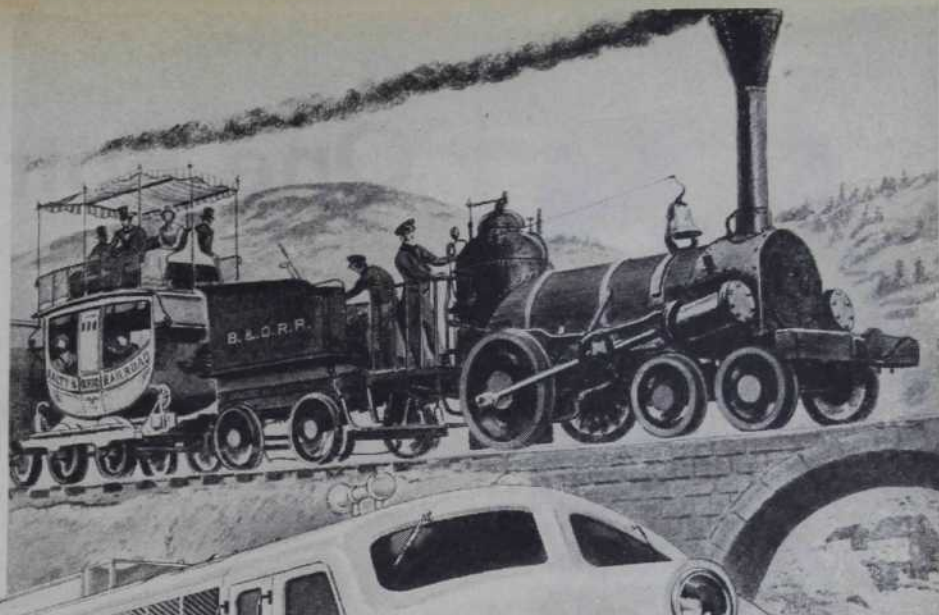
Mr. Budd is a soft spoken and kindly man, but he is pretty emphatic about the rights of the wife.

He has no option but to take out the weekly deduction for Social Security, of course. But he resents it.

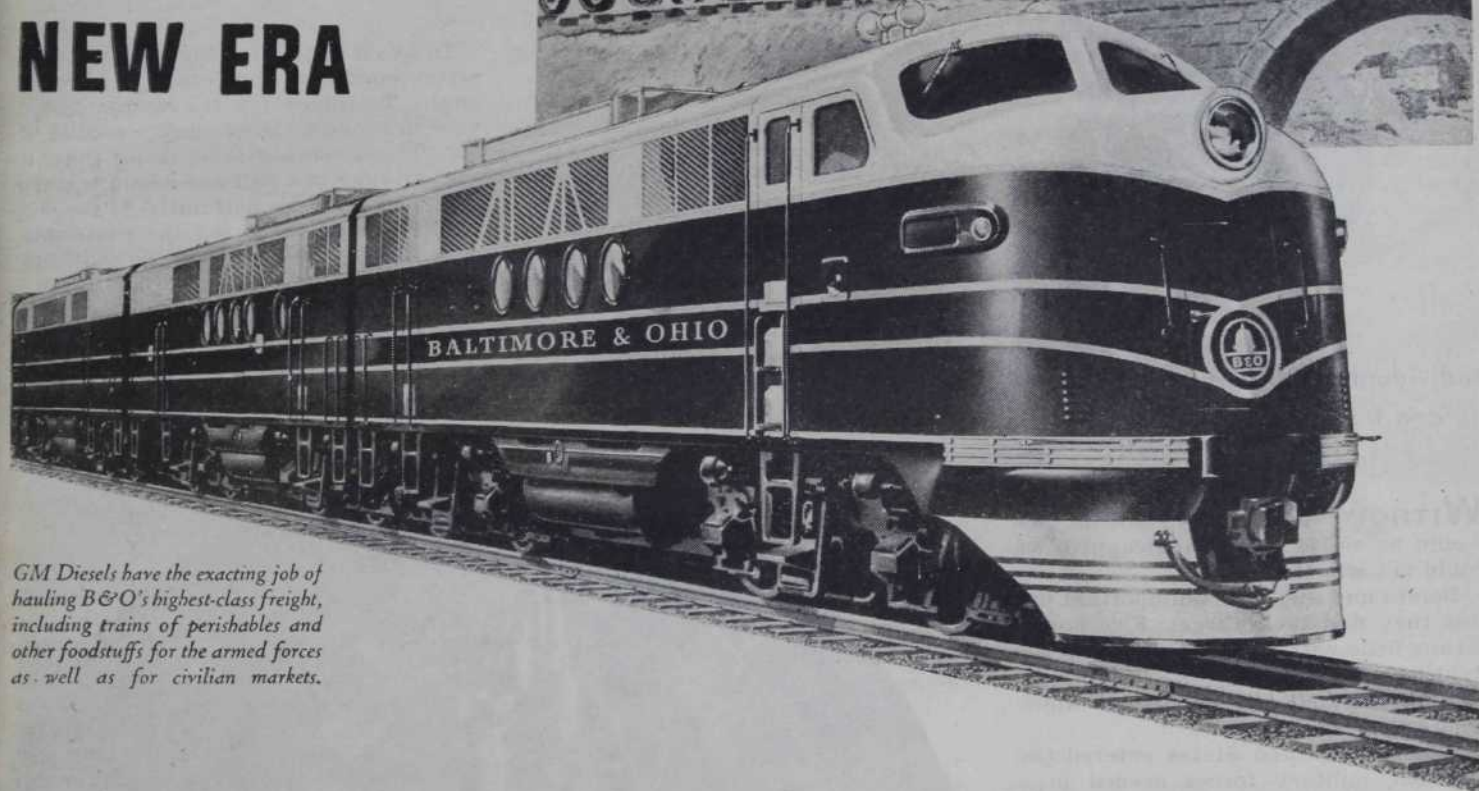
The staff members at the Budd general offices have a company joke. They say they are happy because Mr. Budd is a good churchman, for there is no telephone in the church. He has a habit of telephoning them when an idea occurs to him and they occur very often. He is very definitely the boss.

In four and one-half lines in "Who's Who" it is recorded that he is president of his companies and gives his home and business addresses. And that is all. That is close to the record of brevity.

The LaFayette—1837. One of the earliest B & O locomotives to haul the trains of the Presidents of the United States.



PREFACE OF A NEW ERA



GM Diesels have the exacting job of hauling B&O's highest-class freight, including trains of perishables and other foodstuffs for the armed forces as well as for civilian markets.

DAY in and day out, General Motors Diesel Locomotives are proving their ability to haul huge loads far, fast, with little attention and at low cost. In any vision of the future of transportation, these tireless giants must loom large. Already they have won a place of rare importance by their unprecedented performance in the work of the railroads at war.

KEEP
AMERICA
STRONG
BUY
WAR BONDS



LOCOMOTIVES ELECTRO-MOTIVE DIVISION, La Grange, Ill.

ENGINES . . 150 to 2000 H.P. . . CLEVELAND DIESEL ENGINE DIVISION, Cleveland, Ohio

ENGINES 15 to 250 H.P. DETROIT DIESEL ENGINE DIVISION, Detroit, Mich.



PRESS ASSOCIATION PHOTO

Individual railroad ties can be recorded from a height of 40,000 feet

WITHOUT optical instruments, we would be so seriously handicapped, we could not win the war.

Bombs and shells are unimportant unless they find their target. Fire power means little without fire control. As the fighting men say:

"You can't hit 'em unless you know where they are."

When the United States entered the war our military forces needed in a hurry: range finders for warships, bombsights for planes, gunsights for tanks, antiaircraft height finders, periscopes, telescopes, binoculars. Also: cameras, movie projectors, aerial map-making equipment, sextants.

Expanding industry needed: microscopes; photomicrographic equipment, cameras for record keeping and for photographic template making. Also such things as: spectrographic equipment to determine the chemical content of materials; metallographic equipment to determine the physical characteristics of metals; contour projectors to control the shape of precision parts.

The list could be extended.

The service men themselves (one in every five of our 8,000,000 soldiers) needed eyeglasses—three pairs each, one for regular wear, one for reserve and one for wear with a gas mask. For eyeglass repairs, the Army needed mobile optical units, complete shops on trucks, each with enough replacement lenses for 300,000 men.

The eyeglass part of the picture was easy, the precision instrument part not so easy.

One Bottleneck that Didn't Happen

By ART BROWN

Optical equipment for war cannot be slapped together overnight.

Lenses and prisms do their work by slowing down and controlling the action of light, bending the light waves as they speed along at 186,000 miles a second. Making fine lenses calls for high accuracy, almost unbelievable tolerances.

Standard unit for measuring the accuracy of an optical surface is the wave length of sodium light: 0.0000232 of an inch—one thousandth the thickness of a human hair. For some optical surfaces, the tolerance of regularity is one-tenth of a wave length.

To avoid distortion, the surfaces of a prism must meet at precisely the proper angle. Tolerance for the wedge prism used in range finders is half a second of arc. This tolerance is so small that, if the two sides of a half second angle were extended six and a half miles, at the end of that distance (so say the lens makers) the divergence would be only one inch.

Some of the range finders are big enough to fill a freight car, include 1500 mechanical parts and about 100 optical elements. Range finders employ the principle that given one side of a tri-

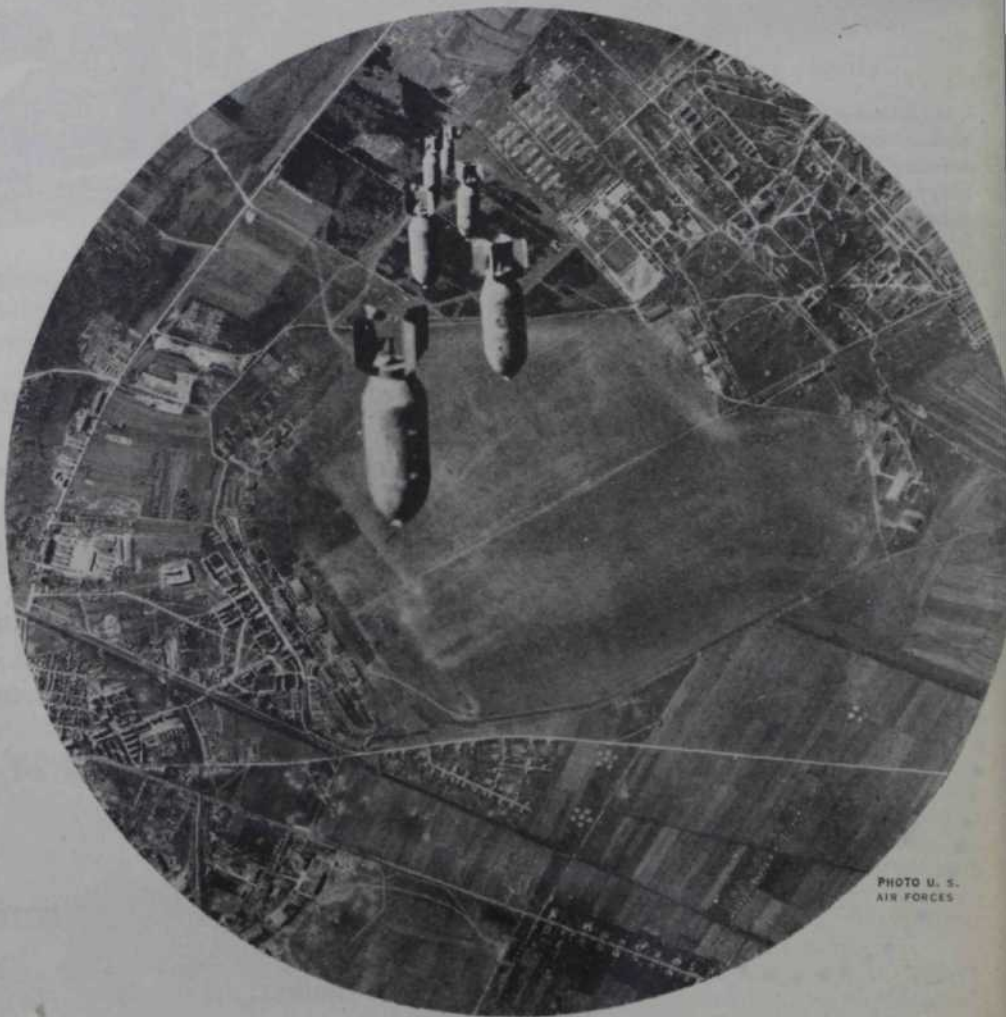


PHOTO U. S. AIR FORCES

Today's aerial camera reveals minute significant details of the target. The bombsight enables the bomber to hit the mark

When Armies Fly to Battle



Bond buying keeps them flying!
BUY ANOTHER WAR BOND TODAY

Spewed onto an enemy airfield behind the battle lines, paratroops and glider-borne infantry strike fierce blows to wrest the field from the enemy. While the struggle flames, planes of the Troop Carrier Command shuttle overhead, between battle and base, bringing up reinforcements, supplies, food and ammunition, and evacuating casualties to dressing stations and field hospitals.

When the field is won, planes land heavier equipment, and facilities are repaired for use against the enemy. Miniature construction machinery is flown in, and skilled technicians speed rehabilitation of the area with their compact, efficient equipment—tractors, bulldozers, sheep's-foot rollers, graders. When they finish, they are flown to other assignments, and the fighters stay behind to hold and use the field while ground forces fight overland to join them.

The smooth working of these complicated operations is the result of most careful preparation, involving a great amount of figuring, accounting and statistical work. On this, and hundreds of other wartime figuring tasks, Burroughs machines are providing the speed and accuracy essential to Victory.

BURROUGHS ADDING MACHINE COMPANY • DETROIT 32

NORDEN BOMBSIGHTS—Years of experience in precision manufacturing are enabling Burroughs to render an extremely important service to the nation by producing and delivering the famous Norden bombsight—one of the most precise instruments used in modern warfare.

★ ★ ★

FIGURING AND ACCOUNTING MACHINES are also being produced by Burroughs for the Army, Navy, U. S. Government, Lend-Lease and those business enterprises whose requirements are approved by the War Production Board.



Burroughs

angle and two adjacent angles, the other dimensions can be determined. The range finder's length is the base of the triangle, the target the apex. Proper sighting on the target gives direct reading of the distance. To build a big range finder takes half as long as to build a battleship.

Not every optical instrument is, of course, as complicated as a range finder, but all of them require skill and experience to make. Moreover, building optical instruments requires precision optical glass.

Optical glass is tricky. It must be colorless, highly transparent, free from strains, free from imperfections, resistant to tarnish.

Made in "cured" pots

MOST optical glass is made of silica (quartzite sand) mixed with various compounds of sodium, potassium, calcium, boron, lead, barium, zinc, antimony, aluminum, to mention a few. It is made in large clay pots which take several months to build and "cure."

Glass used in spectacles is poured out on an iron table, rolled to proper thickness and annealed. But glass used in precision lenses and prisms is allowed to cool slowly in the clay pot and to crack along its natural cleavage lines. Then the pot is broken away, the chunks of glass inspected, molded into blanks of suitable size, ground and polished.

When we entered the war, only one company in this country—Bausch & Lomb Optical Company—was making precision optical glass on a commercial basis.

Before the First World War, all our optical glass came from Europe. Its manufacture was a secret, a government monopoly in France, almost so in England, and in the hands of a single company in Germany.

Bausch & Lomb started experimenting in optical glass in 1912, was producing it on a small scale in 1917. With the help of scientists from the Carnegie Geophysical Laboratory, the company produced 65 per cent of the optical glass our Army and Navy used in the First World War.

Two other companies got into production in War I, Pittsburgh Plate Glass Co. and Spencer Lens Co. But only Bausch & Lomb remained in the precision optical glass business after the war was over.

Here, then, was a perfect setup for a potential bottleneck when the United States got into the present war: A sudden need for large numbers of precision optical instruments; a restricted number of trained workers capable of building such instruments; and a limited supply of the basic raw material, optical glass.

But this bottleneck never developed.

In cooperation with other manufacturers—some of whom had never before had anything to do with the manufacture of optics—the optical industry spearheaded by Bausch & Lomb not only succeeded in meeting all our war needs but also kept up production of all essential civilian needs.

On top of that, the optical industry has come through with new and improved military instruments. Before the war, Europe was regarded as the world's leading producer of optical goods. Not so any more.

Says Eastman Kodak, which made aerial lenses but no military optical instruments before the war and which now produces 31 different types of instruments for the Army and Navy: "Army ordnance experts report, 'We have examined captured German sights and periscopes and, element for element, the United States is turning out better material.'"

Eastman is now making an entirely new kind of optical glass. It contains no silica but is made of "rare-earth elements"—tantalum, tungsten and lanthanum. This new rare-earth glass was originated by Dr. G. W. Morey of the Carnegie Geophysical Laboratory, and perfected in the Kodak Research Laboratories.

"It is the first basic discovery in op-

tical glass manufacture in 55 years," says Eastman. "It is almost as revolutionary as producing steel without iron."

This new glass is made not in clay pots, but in small platinum crucibles which cost about \$3,000 each but which can be used over and over.

"An aerial photographer equipped with a lens of this new rare-element glass," says Eastman, "can get night pictures of better quality—with the same light—at a greater height."

Among other war instruments, Eastman has developed two new cameras, one for stills and one for movies, for use in submarines. These cameras operate through 40-foot "pipes," require no focusing, can be mounted for use within ten seconds.

Bausch & Lomb has perfected a wide-angle aerial camera lens called the Metrogon which makes it possible to take a picture at an oblique angle five miles away from the target horizontally and still show minute significant details.

The Metrogon lens consists of four deeply curved elements, two of which are paper thin at the center and the other two paper thin at the edge. This lens is so free from distortion that equal areas of any part of the negative represent equal areas on the ground.

The optical industry now produces telephoto lenses which will record individual railroad ties from a height of 40,000 feet.

By way of example of what you can now expect from aerial photography: Photographs made by the Fairchild camera show the position and caliber of guns, location of radio installations, the count of enemy troops, nature and depth of submerged offshore obstacles.

Map making has been speeded up through the development of equipment which converts aerial photographs into maps showing the third dimension. With this equipment, it is possible to map an area eight miles wide by 60 miles long in about 48 man-hours.

Better light transmission

THE optical industry has found a way to make lenses and prisms transmit more light. The surfaces are given a permanent hard coating of magnesium fluoride one-quarter wave length thick which cuts down reflection and improves visibility.

Binoculars without coated lens surfaces transmit only about 55 per cent of available light. With coated surfaces, they transmit about 78 per cent.

"That could mean the difference," say the lens makers, "between seeing an enemy sub clearly outlined and merely seeing a wall of fog."

Since the war began, the optical industry has spread out all



Small range finder. A big one fills a freight car, contains 100 precision optical elements

BECAUSE BUYING STARTS
WITH SEEING...PLAN FOR A

VISUAL FRONT

1900



Haniltan's

1935



194X



The change from the 1900 front to the 1935 front was a forward step in beauty—and now the store designer adds full visibility of the store as a step ahead in merchandising.

"I'd like to see some suede gloves."

"What can you show me in personal stationery?"

"Let me see some comfortable slippers."

Customers want to see. And so, doesn't it follow that making it easier to see your store and your merchandise makes it easier for them to come in and buy?

That's some of the thinking in modern storefront design. Build your front so passers-by can see right into the store—so they can see what kind of goods you sell—so they can see that your store is a pleasant place to shop.

The Visual Front does just that. There's no visual barrier between sidewalk traffic and your merchandise

—the front wall and the doors are made of clear glass. The color and pattern of the walls, floor and ceiling of the "arcade" carry right back through this glass wall. The pedestrian is invited back . . . back . . . back . . . until she's inside.

Whether your front is the 1900 vintage or the more decorative 1935 style, chances are it can be "opened up" with glass to invite more traffic—and more sales. There are many beautiful, lustrous glass products to help you do this. Your storefront designer and your Libbey-Owens-Ford Distributor will be glad to discuss them with you. Libbey-Owens-Ford Glass Company, 7384 Nicholas Building, Toledo 3, Ohio.

VISUAL
O
FRONT

Copyright 1943
Libbey-Owens-Ford
Glass Company

LIBBEY · OWENS · FORD

a Great Name in **GLASS**

When looms convert from

Chutes to Nylons



Sheer stockings—and a thousand and one other consumer items must keep our factories humming when war production stops. Conversion must be rapid. Our returning service men must have jobs. The public will sorely need and want the goods.

And industry will lose no time. As always, it will find AIR EXPRESS indispensable for saving millions of man-hours and dollars, through the high-speed delivery of critical tools and material. Industry will find AIR EXPRESS facilities constantly being expanded—to serve all business with economy, in all domestic and foreign markets in the coming age of air-commerce.



**A Money-Saving,
High-Speed Wartime Tool
For Every Business**

As a result of increased efficiency developed to meet wartime demands, rates have been reduced. Shippers nationwide are now saving an average of more than 10% on Air Express charges. And Air Express schedules are based on "hours", not days and weeks—with 3-mile-a-minute service direct to hundreds of U. S. cities and scores of foreign countries.

WRITE TODAY for "Vision Unlimited"—an informative booklet that will stimulate the thinking of every executive. Dept. PR, Railway Express Agency, 230 Park Avenue, New York 17, N. Y., or ask for it at any local office.

AIR EXPRESS

Gets there FIRST

Phone RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION
Representing the AIRLINES of the United States

over the country. Precision optical glass is now being made by Libbey-Owens-Ford, Corning Glass Works, Pittsburgh Plate Glass Co., Hayward Optical Glass Co., as well as by Bausch & Lomb and Eastman Kodak Co.

New optical companies have been formed including the American Lens Co. and Zenith Optical Co.

Established firms in fields unrelated to optics are now turning out military optical instruments, though in most cases are not making their own lenses and prisms. The list includes: Mergenthaler Linotype Corp., Bulova Watch Co., Herschede Hall Clock Co., May Oil Burner Co., Minneapolis-Honeywell Co., Morse Twist Drill & Machine Co., Warner & Swasey Co.

American optical center

BEFORE the war, optical manufacture and optical research centered in Rochester, N. Y., home of Bausch & Lomb, Eastman Kodak, Wollensak Optical Co., Ilex Optical Co. and Simpson-Walther Lens Co.

Eastman manufactured cameras, lenses and complex optical photographic instruments, in addition to its photographic materials.

Bausch & Lomb specialized in ophthalmic goods, instruments for testing vision, scientific and industrial optical instruments, big range finders for the Navy, and binoculars which met Army and Navy specifications.

Wollensak Optical Company made photographic goods and binoculars to retail at popular prices. Today, it makes military binoculars and lenses for military instruments.

Rochester takes due credit for helping prevent a critical shortage of needed military optical equipment.

Rochester's volume of peacetime optical business was big enough to enable the local firms to work out mass production methods in what had been an industry of artisans and craftsmen.

The technique was simply to break down the exacting jobs of the artisans into smaller component parts so that inexperienced workers could handle most of the operations, leaving for the craftsmen the tasks which they alone could do.

When the war boosted the demand for optical goods, this technique was extended. New workers were hired and trained, new facilities added.

Outside companies with war contracts for optical devices, the manufacture of which was new or partially new to them, turned to Rochester for technical aid. Rochester made available to the outside firms a working knowledge of production of optical goods.

During the transition period in which the outside companies were getting into self-contained production, Rochester supplied them with the actual optical elements, relieving them of the hard job of producing these precision parts themselves. In some cases, this is still being done.

Bausch & Lomb now makes more bin-



How to make money out of your office

YOU business men who have thought profits come only from factory and sales can have a pleasant surprise—*there's money to be made in your office, shipping room, administrative departments*—wherever paperwork is handled. Can you afford not to make savings like these—actual case histories that contributed *100% additions to net profit*:

Cost of inventory-taking cut from \$1180 to \$20.

Personnel record writing cut from 23 operations to 1.

Time for 7500 daily job tickets reduced from 48 hours to 7.

Errors and arguments eliminated from payroll writing, overhead cut, paper saved.

100 people saved for more essential war work, out of one department alone.

You, too, can save paper, money, and manpower in these and many other ways by Addressograph *simplified business methods*. They revolutionize office work by writing payrolls, personnel records, dividends, tax records, job tickets—by providing tool crib controls—by identifying parts and shipments—by doing a hundred jobs more quickly, accurately, economically.

Addressograph (and Multigraph, made by the same company) can eliminate errors, and save you time and money on 80% of all the paperwork of your business. You probably have the machines already. Let us show you how to get the most out of them. Write or call Addressograph-Multigraph Corporation—Cleveland 17, and all principal cities of the world.

Addressograph

TRADE-MARK REG. U.S. PAT. OFF.

SIMPLIFIED BUSINESS METHODS

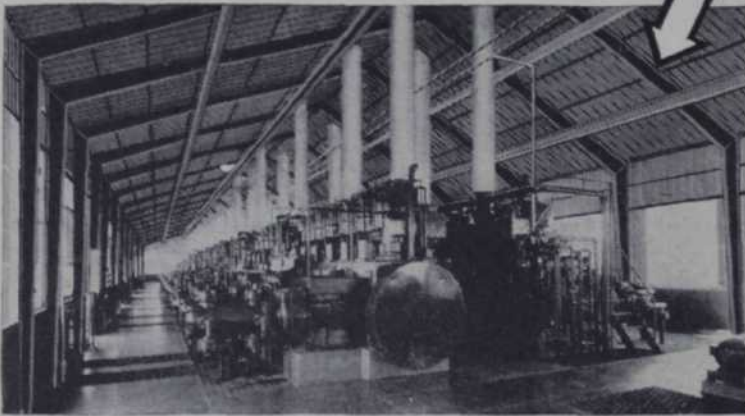


Multigraph and Addressograph are Registered Trade Marks of Addressograph-Multigraph Corporation



BEFORE

AFTER



NEW BUTLER BUILT RIGID FRAME BUILDING DESIGN

CUTS CUBAGE SAVES STEEL — SAVES MONEY

At the top is an interior view of the world's largest recycling plant. The 8,200 horsepower it houses repressures an oil field to maintain high level production.

When the Butler Steel Building was designed for it in prewar days, a functional requirement made it necessary to make the building several feet higher than was otherwise necessary.

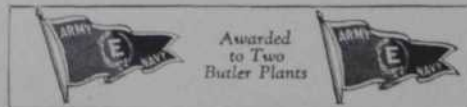
Three or four feet of extra height on a building 214 feet long and 40 feet wide calls for a lot of extra material, time and money, just to gain headroom for chain hoists operating on overhead tracks.

To functionally fit just such requirements in industrial buildings, Butler engineers developed a new rigid frame structure. To give a clear picture of its advantages, the artist has drawn the rigid frame in on a separate photographic print of the same interior view of the recycling plant shown at

the top. Note that roof trussing is eliminated entirely. This permits cutting height and unnecessary cubage. It saves steel and saves money.

Emerging from the production of thousands of steel buildings through the war years for lend-lease and the armed forces, is a complete new line of Butler-Built Steel Buildings. They are designed to serve better functionally than any that have preceded them in three decades of manufacture by Butler factories.

Address all inquiries to:
7456 East 13th Street, Kansas City, Mo.
956 Sixth Ave. S. E., Minneapolis, Minn.



BUTLER MANUFACTURING COMPANY
Kansas City 3, Mo.
Galesburg, Ill. Minneapolis 14, Minn.
Sales Offices in Principal Cities

BUTLER BUILT

STEEL BUILDINGS

☆ ☆ ☆ BUY BONDS... MORE THAN BEFORE ☆ ☆ ☆

oculars in a month than it did in a year in peacetime. Yet to clear its plant for action on other and more intricate jobs, it turned over its binocular designs and working instructions to six companies, licensing them to make binoculars on a royalty-free basis.

Firms now making military binoculars of Bausch & Lomb design are: Kollsman Instrument Division of Square D Co., Universal Camera Co., Anchor Optical Co., Westinghouse, Nash-Kelvinator and Research Enterprise, Ltd., of Toronto.

All the manufacturing firms now making optical goods—both the old firms and the new—have had a part in working out short-cuts in production.

Diamond tools for milling

ONE spectacular time-saver, which has recently been developed, is the use of a diamond tool to "rough out" lenses and prisms to size for final grinding and polishing. This milling operation eliminates rough grinding with loose abrasives.

Not all the companies which have entered the optical industry since the war began—or which were in some phase of the work to start with and have since widened their operations—found it necessary to call on Rochester for advice and instructions.

The American Optical Company, for example—through its own experience, ingenuity and resourcefulness—expanded its production to include a wide range of military optical instruments. This company is on record as having provided more eyeglass lenses for the Army and Navy than any other manufacturer.

The Spencer Lens Co., a subsidiary of American Optical, started from scratch and without outside help designed, and is now producing, a military binocular.

The American Optical Co. has worked out a new process designed to control scientifically the annealing of optical glass and thus to speed up its production. Also this company has developed a new glass for use in welders' goggles. The new glass permits the welder to look directly into the full glare of light.

Another firm which greatly expanded its optical production, took on new jobs and found new and better ways of doing things without calling in "outside experts" is Bell & Howell of Chicago.

Before the war, Bell & Howell manufactured professional and amateur movie equipment. Today the company is turning out tank telescopes, gunsights and periscopes, in addition to making photographic equipment.

In cooperation with the Army Air Forces, Bell & Howell has engineered the basic design for a new simplified and compact gunsight for use in fighting planes and has made its blueprints available to other companies.

Before the war, Bell & Howell imported its fine lenses from England.

It did, however, have an experimental lens department which employed six skilled workers. When the company, working on war orders, decided to make



**“... a trout stream in the front yard—
mountains at the back door...”**

WHOS talking? Just a boy and a girl planning their future—the inherent privilege of all Americans.

In this country you've always traveled or settled where you pleased and tried your hand at whatever you chose.

That's the American way of life—the way the Founding Fathers meant it to be. It's *free enterprise!*

Take the case of Solomon Juneau, Byron Kilbourn, Alexander Mitchell and their associates—pioneer Americans with an *enterprising idea*. They envisioned a railroad extending westward from Milwaukee to the Mississippi River. In the face of skepticism and hardships, they planned, persevered, prevailed!

Built nearly a hundred years ago, this railroad became The Milwaukee Road. Extending farther, south, north and west from the Great Lakes, it opened new territory clear to the Pacific Coast.

Sturdy pioneers—eastern tenant farmers, and immigrants, too—staked out farms in this new country and became land owners. Clerks, with more courage than capital, left secure employment to open crossroads stores and become independent merchants. Blacksmith shops grew to great industries, and territories achieved statehood.

That's how the American system worked yesterday—and will work tomorrow. Men with ideas build railroads, or automobiles,

or radios, or tractors. They tap new resources, found new marts—and constantly open new opportunities for others.

It has proved a good system. Let's not tamper with it—except as we must, temporarily, in achieving Victory—lest we win the war and lose our liberty.

THE MILWAUKEE ROAD

11,000-MILE SUPPLY LINE FOR WAR AND HOME FRONTS

Here's a Bowser Liquid
Control Installation that

PAYS 100%
Dividends Annually

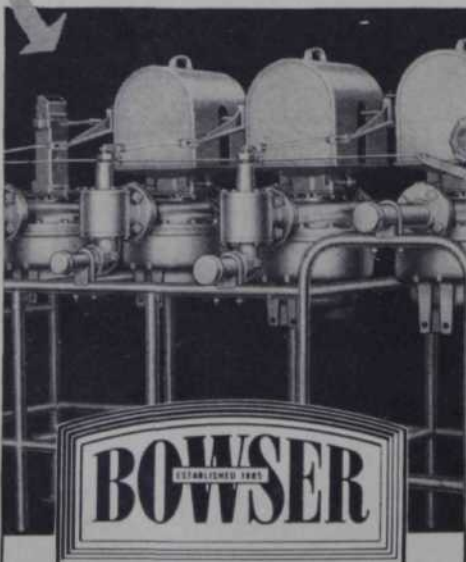
A nationally known plant in New York State installed a Bowser 2-meter Soluble Oil Proportioner for grinding and cutting solutions used in seven different departments. Previously the solutions were mixed in open drums and distributed manually.

Results . . .

1. Three laborers, one for each shift, were released for other work. Estimated annual saving — \$9,360.00. 2. Soluble oil consumption was reduced 10%. Estimated annual saving — \$900.00. 3. Space for two storage drums was saved in each of seven departments. The proportioner and tanks in the oil house take only 30 square feet.

The first year's savings on labor and oil far more than paid for the entire installation. After that, it's "velvet."

That's typical of Bowser Exact Liquid Control equipment. And virtually every manufacturing plant in America has a positive need for something Bowser makes . . . filters, lubrication units, stills, pumps, meters, oil conditioners, solvent purifiers, etc. BOWSER, INC. Ft. Wayne 5, Indiana.



BOWSER
ESTABLISHED 1928

The Name That Means
Exact Control of Liquids



Not only has Bowser's war production earned the Army-Navy E . . . Bowser equipment has helped earn it for scores of other companies.

Buy War Bonds

its own precision lenses, it hired what additional skilled workers it could get, took on more and more unskilled workers, broke down the jobs into smaller operations, revamped optical production methods, redesigned its productive machinery, and launched an intensive training program.

J. H. McNabb, president of Bell & Howell, and his executives had had long experience in making precision mechanical parts to exacting engineering specifications. They saw no reason why they could not learn to make all the lenses they needed—and succeeded in doing so.

The employee-training program was under the direction of Harold Booth, vice president. Because no suitable handbook for optical workers was available, Mr. Booth wrote one. This book has since been distributed to other firms.

To help other manufacturers train workers in new work methods, Bell & Howell is producing six movies for the U. S. Office of Education and the Optical Procurement Division of the Navy, showing in detail the basic skills required in the entire process of precision lens making.

In breaking the threatened bottleneck in military instruments, the optical industry grew more in a few months than in the previous ten years.

How will this sudden growth affect the industry's future?

When peace comes, or when orders for

military instruments are cut back, there will not be enough work to keep busy all the manufacturers now in the optical field. The "strictly optical" firms, however, are not concerned. They see a bright future for the industry—and a better world for the human eye.

All optical instruments, leaders in the industry promise, will be better.

The industry expects to sell more binoculars and microscopes for home use, but warns the consumer not to look for bargains.

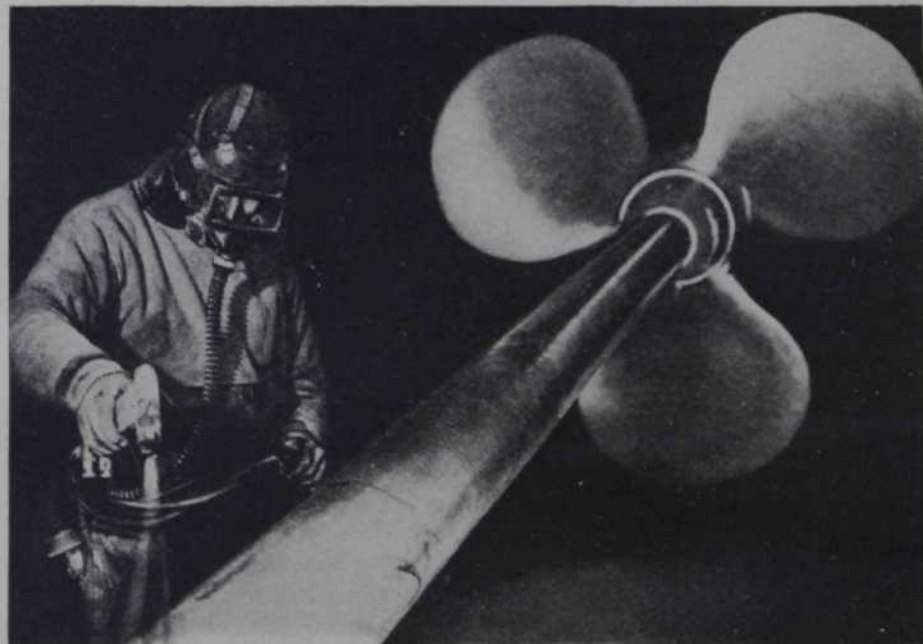
The optical industry expects to see an increase in the use of optical methods in research and in manufacturing.

Firms which make materials and equipment for professional eye care look for greatly increased business in the postwar period.

The camera manufacturers, too, look for increased business after the war, particularly in the motion picture field. The war has shown the effectiveness of visual education.

Educational movies were formerly simple and inexpensive. Tomorrow's educational movies will be made by major film companies and promise to be elaborate and costly productions.

Most of the manufacturers from outside the optical field, the regulars believe, will drop the optical business after the war. If some do remain, there will be new competition but probably business enough for all.



Rubber Plus Steel Equals Bronze

Hitherto bronze propellers could not be fitted to steel shafts for use in salt water because electrolytic action would quickly corrode the steel.

Now a method has been found for flame-spraying Thiokol synthetic rubber on to the steel shaft so that it is completely insulated. The molten rubber is

sprayed on while the shaft is in position on the ship.

The synthetic hardens rapidly to form a firmly bonded coating with extremely high abrasion resistance.

The same process, it is said, can be used for other vulnerable underwater portions of steel vessels.

HERE'S HOW BUSINESSMEN RATE NEW YORK STATE



You are planning now for the postwar period. Here are facts, revealed in a poll of New York State manufacturers, of real importance to you. Unbiased opinions, of men who know from years of practical experience, rate New York as a good State in which to do business.



91% give approval to New York for the availability of raw and semi-processed materials—both produced in the State and imported.



92% endorse New York's unexcelled and diversified transportation system—railway and truck transportation plus waterway and port facilities that give it a time and rate advantage in shipping to mass markets.



91% like the cooperativeness of New York State labor. In 1943 New York lost a lower percentage of manhours due to strikes than any other industrial State.



97% praise New York as a market. Over a quarter of the nation's population and a third of the retail sales right at hand put the nation's number one market at industry's doorstep in the Empire State.



92% approve the service and cost of the State's electric, water and gas utilities. New York is the nation's number one powerhouse, with continuity, flexibility and low cost of service.



91% give an O.K. to New York for the service and cost of fuel—coal, oil and gas.

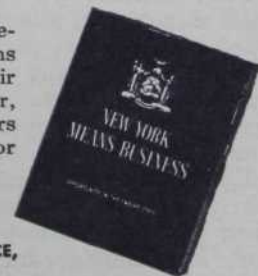
How You Can Capitalize On These Advantages

With such a favorable economic environment, New York State should be considered in your postwar plans. Wherever you are located, the State Department of Commerce can help you. We can assist you on plant locations; supply information on manpower; get you a preview of taxes for a new enterprise; give technical service on new materials and new products; help promote opportunities in foreign trade.

Accept This Informative Book

The services we can render are fully described in our new book "New York Means Business." In it business men tell in their own words their experience with labor, transportation, markets and other factors of doing business in New York. Send for your copy on your business letterhead.

ADDRESS: M. P. CATHERWOOD
COMMISSIONER
NEW YORK STATE DEPARTMENT OF COMMERCE,
ALBANY 1, NEW YORK



NEW YORK MEANS BUSINESS

Key to Postwar Prosperity

(Continued from page 22)

cating their salesmen and sales courses for retail salespeople are scheduled.

This means that the days of the sales person who met all complaints with the reminder, "There's a war on, y'know," are numbered. Already some merchants are weeding out the misfits and incompetents, the surly and discourteous. They know that in an era when competition will be not only more intensive but more widespread and better organized, sales personnel must be courteous as well as technically trained. A. E. Jacques, general merchandise manager of Halle Brothers Company, Cleveland, summed up the general view in a recent talk before a group of store principals:

Selling is easy now

"I AM unhappy to report there is indifference, laxity, a let-down of the efforts that would spare no pains to please a customer, a decreasing interest in showing, suggesting, explaining. It is easy to sell when customers are willing to buy and, because it is easy to 'run a book,' many of the niceties that make friends for a store as well as sell its merchandise are being forgotten.

"Courtesy is priceless. It is remembered long after a particular piece of merchandise is worn out and forgotten. It turns customers into friends. We cannot and we will not be without it. We will not always be at war. There will not always be the same ability of a fully employed civilian public to buy merchandise in abundance."

Emphasis on selling will be expressed in terms of more carefully selected personnel, more highly trained salespeople, and perhaps greater incentives. Apparel chains were among the first to demonstrate that the most competent if most highly paid salespeople produce the lowest selling expense.

Stores of the future will try to attract to their organizations people of ability, imagination, enterprise and ambition. Without them, glittering new retail edifices would count for little.

Last summer we chanced to meet a man well along in years who, at one time, directed the destinies of a giant mercantile business in Chicago. He had retired, but unfortunate investments drained his resources and obliged him to seek employment.

Refusing to exploit past friendships or associations in New York and Chicago, he accepted employment in the basement of a large New York department store. He was impressed with the fact that his fellow salespeople seemed to be indifferent to their daily sales.

One day he resolved to dis-

cover how much business he could write up by the dint of unusual effort. At the end of an ordinary day, he found that he had sold \$300 of merchandise or about five times that of any salesperson on the floor.

Service will be restored

THIS emphasis on selling means that many concerns—especially independent department and apparel stores—which adopted self-service in whole or part as a wartime expedient will resume the services they offered before the war. Store executives feel that, although shoppers are willing to serve themselves, pay cash and carry when it is the patriotic thing to do, service when restored will exercise the same influence it did in the past.

This does not mean that new display methods will make goods inaccessible.

Department Store Economist found that 64 per cent of 3,000 selected department store customers favored merchandise display that permitted them, on occasion, to wait upon themselves; but 57 per cent also want full salesperson service available. Scripps-Howard newspapers found that 71 per cent favored self-service in food stores or departments, less than half wanted it in other departments and only 25 per cent in shoe departments. The newspaper chain sampled 6,000 shoppers in 13 cities.

MacFadden Publications' wage earner forum disclosed that salesperson service was preferred by 83.7 per cent in drugs and cosmetics, 75.9 per cent in household furnishings, 71.5 per cent in clothing and 52.7 per cent in notions.

With a rejuvenated plant and a

trained sales force, the postwar merchant will be inclined to pare mark-ups and put his trust in turn-over. The short profits of quick sales are more rewarding ultimately than wider mark-ups on slower turn-over. In addition, the short profits are fattened by lower percentages of mark-down. Stores in 194X will rely upon the economies of volume to offset margins sacrificed to insure that volume.

This point was stressed in a recent monograph on retailing after the war by Robert R. Nathan, economist and former chairman of the WPB's planning committee. He noted that, if we are to have relatively full employment after the war, production must be at least 50 per cent higher than it was before the war. He believes that we should plan for consumption "at a level half again above the pre-war quantities." He sees the retailer's role as one of developing volume through moderate mark-ups, efficient merchandising and a striving for maximum quantity of sales.

Attaining these vital objectives is the task of big city and small town retailer alike. Manufacturers who concentrated on the cities during the war, because they could easily absorb available output, are overhauling their selling practices.

More stores for small towns

STORES in small towns account for 43 per cent of the nation's business, reports Nelson A. Miller, chief of the distribution management unit of the Department of Commerce. They add up to 93 per cent of all general stores, 66 per cent of hardware stores, 73 per cent of filling stations and 76 per cent of news dealers. He predicts that many other types of small town stores will increase in number after the war.

These small town stores promise to offer stern competition after the war to big city, chain and mail-order outlets. Current postwar plans of most of the major oil companies indicate that in 194X the filling station will emerge as a service store, handling a diversified line of merchandise and aspiring to become a family trading center. It is reckoned already as a factor in the distribution of household, garden, sporting and other goods.

Many types of stores changed their characters for the duration. Grocery stores, for example, took on drug-store types of goods. At a recent meeting of the National Association of Chain Drug Stores it was revealed that nearly 300,000 grocery stores were handling seltzer-aspirin products, 260,000 were handling laxatives, 226,000 were selling cold remedies and 217,000 were carrying dentifrices.

Stores today are selling many wares that they did not carry before Pearl Harbor. They have derived significant volume from jewelry brokerage departments,



"I can't come home right away, honey. I'm taking inventory"

NO. DON'T TRY IT THIS WAY!



PREPARING payroll checks *isn't* child's play . . . and it's nothing to toy around with! If you want a payroll method that will —

Cut down the time it takes to write checks and get them to your employees

Cut down the cost per check

Cut down on record keeping — and help solve your manpower problem —

Simply call your nearest Comptometer Co. representative and ask for details on the Comptometer Check-and-Payroll Plan. There's no charge . . . and he'll be

happy to explain this quick and efficient method without obligation. The Comptometer, made only by Felt & Tarrant Manufacturing Company, 1712 North Paulina Street, Chicago 22, Illinois, is sold exclusively by the Comptometer Co.

COMPTOMETER

REG. U. S. PAT. OFF.

ADDING-CALCULATING MACHINES AND METHODS

EXAMPLE OF *Service* :

Adiabatic and Isothermal Compression (page 9) ...
Moisture and Dew Point (page 30) ... Cylinder
Clearance (page 10) ... Sludge Formations
(page 34) ... These are just a few of the important
subjects discussed in our handsome new booklet,
AIR COMPRESSOR LUBRICATION. Clearly
illustrated, packed with helpful information, it's
free to air compressor owners and their personnel.
Simply write: Cities Service Oil Company,
Sixty Wall Tower, New York 5, N. Y.



More and more, it's service that counts ...

and

Cities Service

means good service!



CITIES SERVICE OIL COMPANY

ARKANSAS FUEL OIL COMPANY

fine art galleries, poultry, livestock, and a host of services ranging from umbrella repair to dry cleaning.

Many have dropped profit-and-loss departments, and soon must decide too whether they will restore such departments. The war brought home the fact that most stores do 80 per cent of their business in 20 per cent of their goods.

Held to prescribed inventories by WPB's inventory control order, thousands of stores jettisoned the slow-moving items to make room for faster-moving goods.

Soon they will have to decide whether customer convenience is really served by carrying the sluggards.

Discarding some departments provided more space for others. The store of tomorrow must plan for the most productive allocation of space.

Logically, with 10,000,000 men returning to civilian life and clothing, department and specialty stores are considering the need for enlarged men's wear departments.

The change faces some uncertainties, because the customer has changed. Men returned from the last war unwilling to wear starched collars. The soft, collar-attached shirt eclipsed the neckband style completely.

In this war, men have learned to go garterless. Will garters pass into limbo too? Service men have become accustomed to wearing clothing scientifically adopted to climatic conditions. How will this affect their clothing purchases in 194X?

As for women's clothing, will the girle and the slip make it impossible to sell lingerie in quantities approximating those of three years ago?

Capital will be needed

FINANCIAL problems also confront store proprietors of the future. They will need capital for outlay on store modernization and expansion, for higher operating expenses and for heavier, initial stocks. They will need capital for what promises to be unprecedented volume in credit sales. Tax laws made it difficult for stores to put aside profits for these contingencies. All but a few stores either must borrow or refinance. The extent to which stores, large or small, can participate in the market of 194X may depend to a great extent on their financial resources.

Briefly, then:

In 194X, the U. S. consumer will come to market with more amassed wealth than the world has ever known. But that consumer must be sold.

There will be many ready and anxious to sell her.

Tomorrow's store of the future will be well equipped to realize tomorrow's opportunities only if it is well-manned. It will have to re-erect the service bridges it has burned behind it; it will have to regain good-will and renew faith.

American merchants have not failed in the past, they will not fail in the future.



43 YEARS
of
LEADERSHIP
PROVES ITS STRENGTH IS
BASIC

For 43 consecutive years The Chicago Daily News has carried more Total Display advertising than any other Chicago newspaper—morning, evening or Sunday.* This lineage all put together has now passed the FOUR HUNDRED MILLION mark. It is a figure which gives eloquent testimony to the deep-rooted conviction among advertisers that The Daily News is Chicago's BASIC advertising medium. And to their conviction that the million reader-friends of The Daily News constitute Chicago's key audience. Experience over the years has revealed to advertisers that The Daily News can sell anything. By *anything* we mean any product or service with merit. Yes, and sell with the economy of expenditure which efficient advertising demands!

*For fair comparison, liquor lineage omitted since The Chicago Daily News does not accept advertising for alcoholic beverages.

THE CHICAGO DAILY NEWS

FOR 68 YEARS CHICAGO'S HOME NEWSPAPER
ITS PLACE IN THE HOME IS ONE OF
RESPECT AND TRUST

DAILY NEWS PLAZA, 400 W. Madison St., Chicago
DETROIT OFFICE: 7-218 General Motors Building
NEW YORK OFFICE: 9 Rockefeller Plaza
SAN FRANCISCO OFFICE: Hobart Building

One Man's Part in the War

By ROSE D. MEYER

ANXIOUS relatives receive soldier mail because a former business man turned a peacetime hobby into a wartime morale builder

IN THE PAST two years, more than 10,000 service men in all parts of the world have received as gifts from Emerson McCord of Houston, Texas, rebuilt fountain pens in fine working order. Mr. McCord has collected used fountain pens from various sources, has made them "as good as new," and has distributed them free of charge to the boys. He is still engaged in the activity and is busier today than ever before.

Emerson McCord is no ordinary repair man. He was formerly an active business executive but, as the result of a railroad accident some years ago, is now confined to a wheelchair.

After many months in the hospital following the accident, Mr. McCord returned home with doubts about his future—with plenty of time on his hands to think about things but with no outlet for his thoughts and emotions. His pen-repairing hobby has turned the tide from a life of boredom to one of adventure.

Found a war activity

"WHEN we entered the war," says Mr. McCord, "I felt more handicapped than ever. I looked around but there seemed to be nothing much I could do to help advance the war effort.

"Then one day I happened to read a magazine article stressing the fact that mail—both from the soldier and to the soldier—can play an important part in strengthening the soldier's morale. I had previously been repairing fountain pens for my friends, after having discovered—in dealing successfully with one of my own that needed fixing—that fountain pens are not so hard to repair.

"After having read that article I began to wonder whether I couldn't turn my hobby into a wartime venture by repairing broken pens and giving them to

our boys going overseas. The idea kept running in my mind, and I finally sent a letter to our local newspaper asking its help in interesting readers to send me their broken pens. I explained in some detail my rather sketchy plan, little dreaming that before long I would be receiving pens from all parts of the country and then sending them to far-flung corners of the world.

"The USO and a local grocery chain were the first to become interested in my plan, and soon hundreds of sick fountain pens came to me. When I had these rebuilt, my next problem was one of distribution. Of course, there was to be no charge for these rejuvenated pens. The distribution method was easily met through the cooperation of Army chaplains in various areas. These officials arranged to have the soldiers going overseas interviewed, and those who did not have pens received one."

Recently Mr. McCord has enlarged his service to include veterans returned home for hospitalization. His one-man project is practically free of expense. He

works at it eight to ten hours a day, and is happier today, he reports, than he has been in years. The only compensation he receives for his work is the satisfaction which comes in knowing that he is contributing to the fighting morale of our boys abroad, attested to in the many letters of appreciation which come to him.

As he puts it: "It is a hobby with me, and a tonic for war mothers. Because of my disability there is very little I can do in a direct sort of way to help win the war. But now I am able, through this work, to help our boys keep in touch with their families.

Rubber shortage met

"AT ONE time it seemed as though I would have to discontinue the job because of the rubber shortage. The sacks are rubber, and to get them requires a War Production Board order. However, I took the matter up with the district offices in Houston, who referred it to Washington. Soon I received the good news from the White Rubber Company, of Ravenna, O., that the rubber sacks would be sent free as the company's contribution to the work I was doing for our service men. That was a red letter day for me.

"True, among the pens I receive are some which at first glance seem to be beyond repair. But no parts are wasted. All can be used in some way as replacement parts. And I am always careful that all such substitutions match in color and design of the pen I am rebuilding."

Mr. McCord is now seeking from the public at large worn-out or discarded pens, to be sent to his home, 1215 Autrey St., Houston, to be rebuilt and given to some soldier—either going overseas or hospitalized at home.

Because of the scarcity of fountain pens available to civilians, he is constantly being approached to do repair work at tempting prices. His answer is always the same—No.

Perhaps after the war he may go into the business. He now feels, however, that he has a full-time job bringing rich rewards. It is bringing the outside very close and is enabling him to recapture the thrill of service to others.

His hobby has given him a healthier attitude toward his isolated life.



"We're tired of this same old arrangement. We want the punch press moved over by the window, the drill over here, and the electric oven turned around so we can talk with the operators!"

Electrical Weapons by the Maker of Bell Telephones

No. 1 of a series: for the Armored Forces



The Radio that helped revolutionize our tank tactics

In 1940 the Army brought one of its toughest communications problems to Bell Telephone Laboratories and Western Electric.

A new radio was wanted for the Armored Forces—a multi-frequency set—in effect a *radio switchboard* to inter-connect tanks, scout cars, command cars, artillery units, anti-tank vehicles. It must withstand unholy pounding, deliver messages clearly through “boiler factory” din.

Normally, producing a model of such a complex set would take a year. In *three months* it was ready—an FM set operating on 80 crystal-controlled channels, any 10 selected instantly by push buttons. It was tested—

accepted—ordered in quantity.

Production problems were many. But Western Electric’s long experience—in making intricate Bell Telephone apparatus—helped find the answers promptly.

Huge numbers of tank transmitters and receivers have been delivered by Western Electric and its subcontractors, Belmont, Delco, Farnsworth and Philco. Providing

closer control through instant communications, this radio led to revolutionary changes in tank tactics—enabling Armored Forces to strike faster, more efficiently.

This contribution to the war is only one of many made by Western Electric—the nation’s largest producer of electronic and communications equipment.

Keep on buying War Bonds!

75TH ANNIVERSARY



Western Electric



IN PEACE...SOURCE OF SUPPLY FOR THE BELL SYSTEM.
IN WAR...ARSENAL OF COMMUNICATIONS EQUIPMENT.

CAPTAIN: "That Gyro-Horizon instrument get here okay?"

SERGEANT: "Yes, sir. It's already installed ... Seems those KIMPAK®-packaged products always arrive in good shape, sir!"



Wartime Lessons That Aid in Planning Postwar Packaging

As a result of packaging lessons taught by the war, the package of the future will be lighter, less bulky, stronger. It will cost less. It will safeguard contents more effectively against moisture, shock, abrasion, crushing, drastic temperature changes.

Much of this new efficiency is due to increased use of versatile, cushion-like KIMPAK Creped Wadding. Experts have discovered that, with surprisingly little package-weight or bulk, KIMPAK absorbs severe shocks and blows . . . protects finish . . . insulates

against sudden temperature variations. It costs little, saves labor, eliminates packaging operations.

Because KIMPAK comes in many different forms, it meets a tremendous variety of requirements. It is made in *ten standard types*, each in a *number* of thicknesses; is available in pads, sheets or rolls.

For a post-war packaging plan, call in the KIMPAK man. His expert advice will cost you nothing, and there will be no obligation! Telephone, write or wire today to Kimberly-Clark Corporation, Neenah, Wisconsin.

*KIMPAK (trade-mark) means Kimberly-Clark Wadding

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
CREPED WADDING

A PRODUCT OF
**Kimberly
Clark**
RESEARCH

Ghosts . . .

TRANSPARENT manikins are used in designing plane parts and equipment for flyers

PLASTIC "ghosts," which are mathematically accurate averages of the trim feminine dimensions of the WASPS, are now enabling designers to make correct adjustment of plane interiors and equipment so that the girl flyers can operate safely and efficiently in quarters primarily scaled to the bulkier male dimensions of the U. S. Army Air Forces.

The transparent life-size manikins made of Plastacele cellulose acetate plastic are sculptured to dimensions representing composites of the measurements of all the members of the WASP. They are similar to plastic figures representing the average dimensions of men of the Air Forces and used in design and adjustment of plane parts and equipment for the crews destined to operate them in combat.

Dr. Alice Brues, anthropologist, under the direction of Lieutenant Colonel W. Randolph Lovelace, II, chief of the Aero Medical Laboratory, Army Air Forces, Wright Field, O., measured the women flyers and assembled dimensions of the average WASP.

The WASPS were then graded into three types. Type A stands five feet, four and nine-tenths inches, and had bust circumference of 35 inches and thigh circumference of 38.1 inches. Measurements of Type B are: height, five feet, two and a half inches; bust, 34.4 inches; thigh, 37.4. Type C measurements are: height, five feet, nine inches, bust, 35.8 inches, thigh, 38 inches.

By comparison, the Type A male flyer is five feet, nine inches tall, with a chest circumference of 35 inches and thigh circumference of 36.25 inches and a sitting height of 36.35 inches.

Manikins are transparent

G. W. BORKLAND, president of General Plastics Corporation, Chicago, sculptured original models to these dimensions in clay. From these, the manikins were produced by the Plastics Department of E. I. du Pont de Nemours & Company.

The manikins are made in sections and the mechanical action of each human joint is reproduced by means of elastic "tendons" making possible "in action" studies of space requirements though the plane is on the ground.

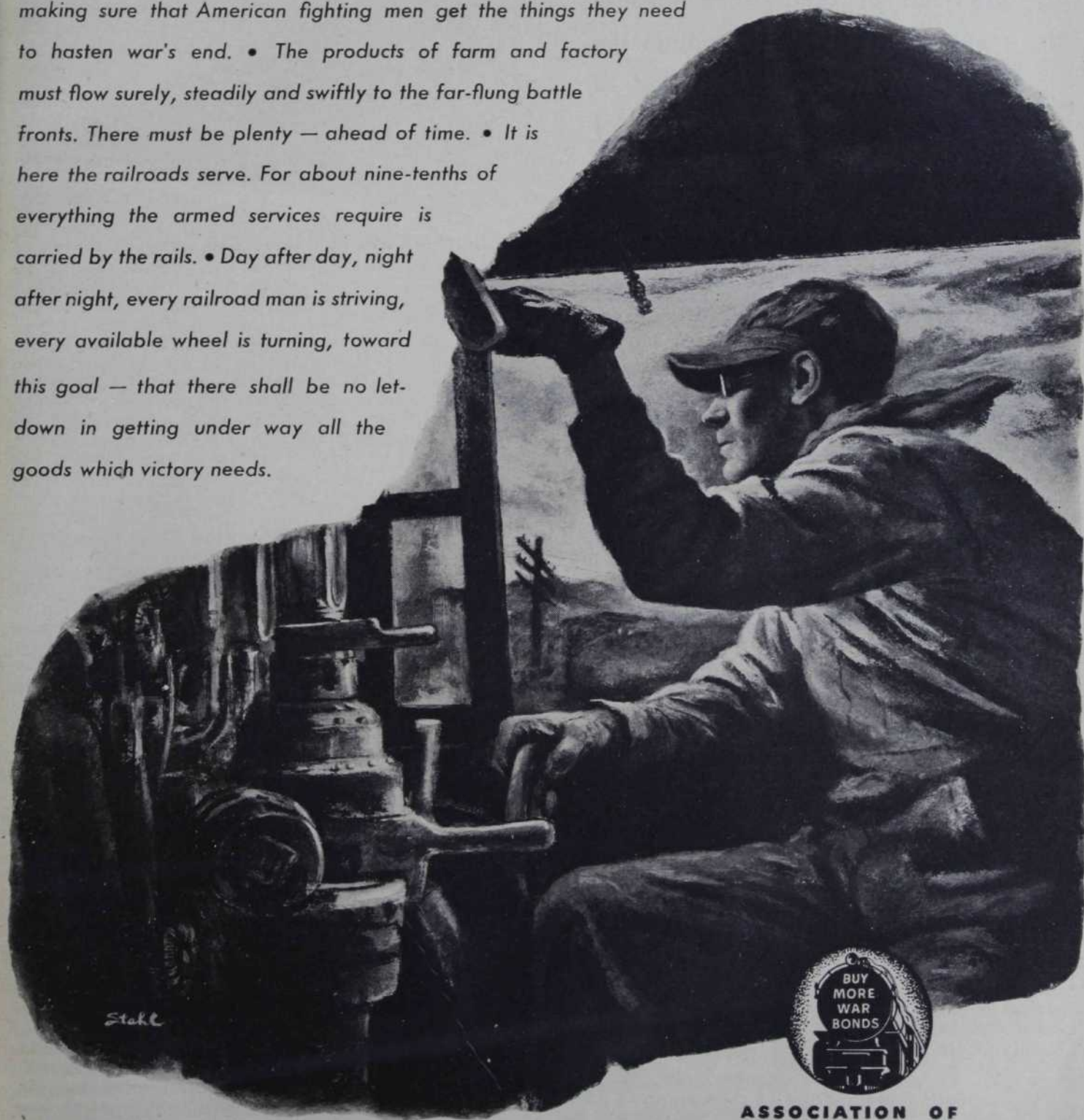
Being transparent, the manikins afford a clear view of points of contact. Applications are foreseen for the principle in postwar planning of automobiles, furniture, and personal equipment.



FULL THROTTLE TOWARD THE FINAL BLOW

Echoing the roar of guns and throb of tanks on distant battlefields, the hurrying song of giant driver wheels rings without letup along the steel paths of America's railroads.

• The railroads are putting all their steam into a single purpose — that of making sure that American fighting men get the things they need to hasten war's end. • The products of farm and factory must flow surely, steadily and swiftly to the far-flung battle fronts. There must be plenty — ahead of time. • It is here the railroads serve. For about nine-tenths of everything the armed services require is carried by the rails. • Day after day, night after night, every railroad man is striving, every available wheel is turning, toward this goal — that there shall be no let-down in getting under way all the goods which victory needs.



**ASSOCIATION OF
AMERICAN RAILROADS**
ALL UNITED FOR VICTORY

Teamwork for Better Health

By ARTHUR H. CARHART

WHILE Government argues the problems of compulsory hospital insurance, the people, through the Blue Cross plan, have arrived at a practical, voluntary solution of their hospitalization problems



CHARLES DUNN

His hospital bill was paid direct and without red tape

IF YOU were on vacation in Tennessee, tried to ride a hill-billy mule, got bucked off, broke your leg and landed in the hospital, you'd worry about the cost, unless—like the Denver man to whom this happened—you had a Blue Cross membership.

When he left the hospital he received no statement for room, meals, general nursing care and other specified incidental costs. The Blue Cross paid the bill direct and without red tape.

Efforts to devise cooperative plans to underwrite hospitalization are not new. For example, the Federal Postal Employees' Association, formed in the early 1920's, paid indemnities on an insurance basis for hospital costs. There are, and have been, industry and union plans for group hospitalization. Insurance companies have entered the field.

More recently in Denver, a group of government employees established a

complete medical service plan. Denver's city employees have their own hospitalization organization, and Colorado State Civil Service employees have still another.

Other hospitalization plans have developed in other communities. There are, in fact, many forms and types of these organizations today, most of them indemnifying the patient-member after he has paid the bill.

But the plan which seems to have hit the bull's-eye is the Blue Cross, the organization which paid the bill for the vacationist who fell off the Tennessee mule.

Sen. Robert F. Wagner has introduced a bill in Congress to provide compulsory payroll assessments on employer and employee for a federalized medical service. Just how the government plan would operate if it should become law is not clear.

Would the patient, under the government plan, be allowed to select his own physician and hospital, or would he necessarily place himself under the care of a doctor selected by a government agency and enter a government hospital or one subsidized by the government?

Would political considerations get mixed up with the government plan, no matter how those who originally proposed it might guard against such developments?

The Blue Cross plan

QUESTIONS such as these make one wonder. Meanwhile, the people themselves have progressed far toward the solution of the hospitalization problem without federal regimentation.

The Blue Cross is a non-profit, cooperative plan. Sponsored by leading hospitals and endorsed by the medical profession, it has swept ahead as the "fastest-growing movement in America."

Blue Cross hospitalization contracts already protect 14,000,000 employed persons and their families in the United States and Canada—and a rapidly increasing percentage of employers pay all or part of the cost.

About 3,000 hospitals guarantee the quality and fulfillment of the services called for in Blue Cross contracts.

The Blue Cross idea originated in 1929 at Baylor University where 1,500 school teachers began paying \$3 a quarter and were guaranteed hospital care when and if needed. A Dallas, Texas, bank, learning about the plan, saw its soundness and worth, and enrolled its employees.

From that modest start, Blue Cross has fanned out into every state except Indiana, with a total of 78 affiliates, five



Father, mother and 14 children pay \$1.50 a month and, as a family group, are covered by the plan



Digging the Foundation for a Better World

This pit is a "whopper". It has to be. From its depths come the strength and power that will shape a new and better world.

Raw materials — the very foundation of progress — are pouring today from scores of open pit mines. Not extracted in driblets from tiny shafts, but ripped from the earth by giant electric shovels.

Here, then, is the beginning of the cycle in mass production: better shovels—broader supply—more goods — better living. And P&H, with its new electric shovels, has found new and better ways to harness electric power—to assure simpler, steadier digging and lower costs than ever before.

Keeping pace with American ingenuity in other fields, these new shovels will find more extensive

application in helping to turn coal into nylon, limestone into rubber, or in making it profitable to dig lower grade ores.

Thus tomorrow, P&H will play its part in the American way of life — helping to produce "More goods for more people at lower cost."



P & H

HARNISCHFEGER

CORPORATION

EXCAVATORS • ELECTRIC CRANES • ARC WELDERS  HOISTS • WELDING ELECTRODES • MOTORS

- Overhead Cranes • Electric Hoists
- Excavators • Welding Positioners
- Arc Welders • Welding Electrodes

Milwaukee 14, Wisconsin

Old Melody Liqueurs

70 PROOF

America's favorites FOR True Hospitality

SLOE GIN
PEACH
APRICOT
ORANGE GIN
MINT GIN

M.S. Walker, Inc.
 BOSTON, MASS.

WANTED

**IDEAS, INVENTIONS,
 HIGH-PRECISION PRODUCTS
 FOR POST-WAR MANUFACTURE**

This Company, with 2 modern factories, and 1,400 employees, at present engaged in the most exacting type of high-precision war production, wants new inventions or products requiring high-precision and skill for post-war production. Consider outright purchase or royalty basis.

Write New Products Division, Dept. N88

THE MB MANUFACTURING CO.
 NEW HAVEN, CONN.

MANY ADVERTISERS HAVE FOUND

small space in Nation's Business particularly effective for developing new prospects and customers. An advertisement such as this will reach 404,407 of the country's most influential business men, yet costs only \$185.00. Nation's Business itself uses this size in magazines and newspapers. Write Nation's Business, 420 Lexington, New York City 17, for more particulars.

in Canada and 14,000,000 members. Each affiliate has its individual plan of operation but all follow a general broad pattern.

Individuals cannot join. Membership must be acquired through a group already formed primarily for some other purpose. At first, individuals and specially formed groups were accepted, but this proved unwise, since such memberships usually included a high percentage of folk who were ill, expecting to be ill or maybe hoping they would be.

Since no time elapse after joining was required for maternity cases, many men signed up themselves and families within a few weeks before a new arrival. Now from ten to 12 months must elapse to make a pregnancy case qualify for Blue Cross benefits. These early errors in policy have been corrected.

Memberships total a high percentage of population in certain communities. Rochester, N. Y., assures the service to 50 per cent of its population. Cleveland is comparably covered. Reports heretofore have centered on swift increases and huge sizes of membership in areas where big payroll groups exist but the plan gets its real test in communities where the population is scattered and the mere contacting of eligible people is difficult. If it works there—it works.

The Blue Cross plan in Colorado, known specifically as The Colorado Hospital Service, offers an example.

Total population of Colorado is about 1,250,000; one city, Denver, with approximately 400,000, is the only community with more than 100,000 population. The rest of the state is made up of smaller cities, rural communities, farms and ranches.

The Colorado Hospital Service, not yet six years old, has 230,000 members; 20 per cent of the state's population. The Denver enrollment is 180,000 or about 45 per cent.

As in other cities, the larger corporations' employee groups were first to join

in Denver. But beyond that, such groups as the Denver Bar Association, the Denver Dental Association, the Musician's Union—all types of union groups in fact—an "Executive's Club" of General Motors, the Real Estate Exchange, the Denver Realty Board, all joined.

There is no limitation so long as a group gives a pre-established cross-section of normally healthy people. The owner of a shop where his wife and daughter work cannot join but, if he has one hired clerk, it makes a "group" of two and all can join. Many small business establishments have obtained protection under that procedure.

In a scattered population

NOW comes the more amazing spread, as the plan fans out over the state. Here is where this association demonstrates the far ramifications of the Blue Cross service.

Spaces are wide in Colorado. Rural area populations are scattered. But groups are found there, already formed, which may come into the Blue Cross affiliate.

In Westcliffe, Colo., a little town in the great Wet Mountain Valley, there is no large industrial group, but an enterprising Chamber of Commerce secretary used the chamber as the group basis for membership. About 80 per cent of the people in that village and on adjacent ranches belong to Blue Cross. The secretary collects quarterly dues and forwards them to the association.

Grange units have joined as have rural "credit unions," extension clubs formed by county agricultural agents, Farm Security Administration groups, Rural Electrification units. A Parent-Teachers Association in the small resort village of Evergreen was the vehicle for persons in that community joining.

The Home Maker's Club at the town of Monument, with a smaller population than Westcliffe, joined up. The Lions



The plan has demonstrated that it can work in isolated communities as well as in metropolitan areas



Landing Signal Officer on Flat Top. Official U. S. Navy Photograph.

This page is
"Kodak"
 in more ways
 than one



TO PRINT THIS FULL-COLOR KODACHROME PHOTOGRAPH, four separate printing plates are made *photographically*—each a complete record of one of the basic colors. The colors are then printed in succession, one over the other, as shown above.

FROM the snapping of the picture itself on Kodak Film . . . through a succession of photographic processes (for which Kodak supplies materials) . . . the illustration finally reaches the printed page.

This procedure is followed in the making of thousands of magazine and newspaper illustrations—editorial as well as advertising. They are produced through photoengraving, photolithography, or photogravure. As you see, "photo" is common to all.

In a sense, therefore, almost any page might be called a "Kodak page"—whether it happens to be a Kodak advertisement or not.

So, as you go through your magazines and newspapers, it is *photog-*

raphy which reports to you the war and other news . . . adding to your knowledge and entertaining you a dozen times a day.

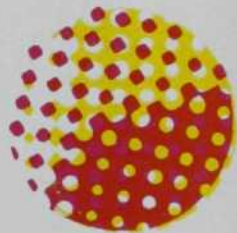
One important reason why magazines and newspapers are so "readable" and "lookable" is that Kodak has long been a leader in developing materials for improved reproductions.

EASTMAN KODAK COMPANY
 ROCHESTER, N. Y.

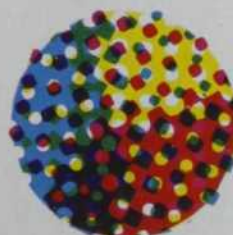
REMEMBER THE U. S. S. ATLANTA? . . . How in the fighting near Guadalcanal—with one-third of her crew wounded or slain—she fought on until the enemy had been routed?—how, after sinking a destroyer—though her engine-room was flooded, her top-side a shambles—she went after a cruiser and sank that too, before her battered hulk slid under the waves?—A stern example for us at home. BUY MORE WAR BONDS.



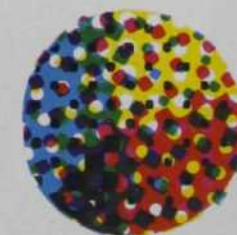
Magnified 15 times, a print from a section of the "yellow" plate is seen to be a pattern of dots . . .



Red dots are superimposed . . . printed by the corresponding section of the "red" plate . . .



Dots from the "blue" plate are printed next . . .



Then black dots, for "depth" of color.

Serving human progress through photography



Keeping Fresh Foods *Fresh*

● From the great producing areas of our western states come vast quantities of vitamin-rich fresh fruits and vegetables. The P. F. E. cars—ice-boxes on wheels—are specially designed to transport these essential foods...to protect them from spoilage...to keep them fresh regardless of summer's heat.

It's the job of trained employes to see that these refrigerator cars are properly iced before departure and at points along the route. Shipped over Union Pacific's Strategic Middle Route—uniting the East

with the Pacific Coast—these health-building foods are made available to our armed forces and home front workers.

The development of the refrigerator car is a typical example of American enterprise and resourcefulness. As long as hard work and personal initiative are encouraged and rewarded, our country will continue to progress and prosper. Union Pacific employes are working and fighting, along with other Americans, to maintain the fundamental doctrine of equal opportunity for all.

★ *Help the war effort by not wasting foods
—by not paying over-ceiling prices.*



**THE PROGRESSIVE
UNION PACIFIC
RAILROAD**

Club at Louisville was an organization through which memberships were acquired.

Perhaps the most unusual group is a "water users" association. Irrigation is a vital part of Colorado agriculture. Farmers form these water user associations to buy water out of an irrigation system, see that it is distributed and, through dues based on each user's allotment, pay for it.

Blue Cross members get service, and their own choice of 31 of Colorado's best hospitals.

A definite feature of the plan is the fact that a hospital must meet certain minimum standards before it becomes a member hospital. A Blue Cross hospital has established good standards before it qualifies.

Service is sometimes pathetic, sometimes touched with humor. There was the case of Virginia W., a little girl suffering from a rare blood disease. Her father joined the Blue Cross before she developed the symptoms. Since then she has been to the hospital 55 times. Her visits are tallied on five filing cards stapled together at Blue Cross headquarters.

Dues pay large bills

THE memberships her father took out for his family have taken care of more than \$1,250 in hospital bills, because each trip there represents a transfusion and about \$15 in costs. One time Virginia had to stay 29 days, and the cost was \$109. Another time she stayed 25 days—each time the Blue Cross paid the bill. Here is a Virginia who knows there is a Santa Claus.

A prominent banker, developing a heart condition, has been to the hospital 20 times in five years. He is a member just like Virginia and the specified hospital service he requires is paid for by the association.

A farm family in the San Luis Valley consists of father, mother and 14 children, the oldest a daughter, 16 years old, the youngest a baby ten months. They joined through a farm resettlement group. They pay \$1.50 a month as a family group—and will get care if needed just as the banker or Virginia.

Workers in Colorado's Blue Cross chuckle about one instance when they played first-aid to laggard cupid. A young woman at a war plant entered the hospital as a pregnancy case. The father was also a worker in the plant. Both had been individual Blue Cross members for a year or more.

Because she was a single member and not covered by a family group membership, the girl was not eligible for care during pregnancy—so the two were married, after the girl had entered the hospital, to form a family group and make her eligible.

Recently, and following the "Blue Cross" plan, the Colorado Medical Service, Inc., has been formed. It is a non-profit corporation separate but interlocking with the Blue Cross Service. For \$2 a month, a man may register him-

You mean

SHE "co-pilots" 80,000* planes?



That's the idea! She's helping to "Keep 'em in the blue"—a task of supply, maintenance and repair that makes the Army Air Forces' *Air Service Command* the world's largest business. A.S.C.'s stock ranges from carburetor springs to bomber wings—totals about 500,000 different articles—and flows in dependable streams to depots, air fields and outposts the world over.

With its goal *the right thing at the right place at the right time in the right quantity*, A.S.C. has standardized in its hundreds of establishments the Kardex Stock Control System this girl finds so easy to operate. In speed, simplicity, compactness and up-to-the-minute accuracy, Kardex *Visible Record Systems* meet stiff military requirements! Kardex shows the true current balance of every individual item at all times—shows it *at a glance* with the exclusive Graph-A-Matic signal, Remington Rand's "seeing-eye of administrative control."

*The real number is, of course, a military secret.



FOR BUSINESS EXECUTIVES: Kardex *Visible* can match this performance on your problems of administrative control. Ask our nearest Branch Office to send a Systems and Methods Technician. Have you got your copy of the valuable new brochure "Graph-A-Matic Management Control" with its 136 case studies of "Fact-Power" at work?

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SYSTEMS DIVISION

REMINGTON RAND

Buffalo 3, New York





For Butchers, for Bakers,
for Candle-stick Makers

in fact

Ohmer Cash Registers are at work today in 125 DIFFERENT LINES of RETAIL BUSINESS

THROUGH these trying days OHMER CASH REGISTERS are "ringing up" a record of service in almost every line of business that you can imagine. You'll want to examine that record when the fight is over—you'll want to see how well OHMER REGISTERS have served merchants whose problems are identical to your own. Until that day arrives remember the name—OHMER CASH REGISTERS—at work in 125 different lines of retail business—in all the 48 states—and in 40 other countries and possessions.

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CASH REGISTERS for every type of retail store
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self, wife, and any number of children. Exactly as the other service provides for hospital costs, this Medical Service will pay for all necessary operative procedures in hospital or doctor's office.

Fractures and dislocations, obstetrical care after 12 months of joint membership of husband and wife, and all anesthesia are covered. Laboratory services and X-ray services up to \$15 each year per member are provided; and the patient may select any one of 300 or more doctors who are registered as participating physicians of Colorado Medical Service, Inc. Membership in this service is increasing so rapidly that any figures quoted would be obsolete tomorrow. Fifty thousand members are expected by the end of 1944.

Next, say officials, comes all medical service, just as soon as the basis for sound operation that will take care of every illness has been worked out.

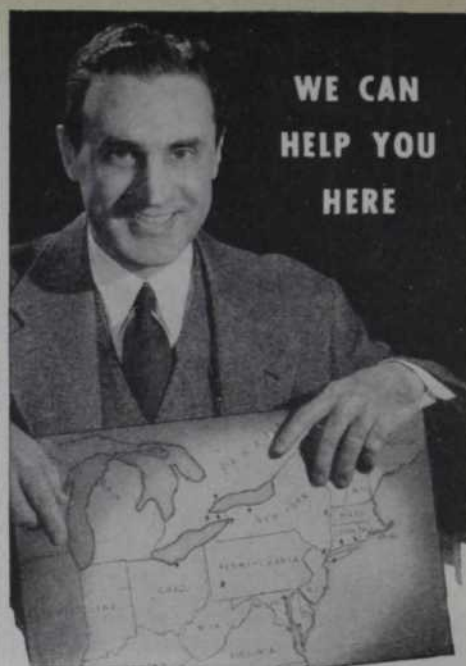


Farming by Air

An airplane is used by L. J. Letnes to shepherd his flock of 20 self-propelled combines across the hundreds of miles of grain between Hutchinson, Kans., and the Canadian border. His task is to survey the route of the machines, hedge-hop from one farm to another, lining up acreages to be cut.

The combines he directs are part of the Harvest Brigade, comprising 500 new self-propelled machines each operated by one man, and needing no tractor for towing. They are able to cut grain in corners that a towed harvester cannot reach.

The 500 machines were sold early this year to custom cutters who would pledge to cut a minimum of 2,000 acres. Their goal is to harvest 1,000,000 acres that might otherwise remain uncut because of critical shortages of manpower and machinery.



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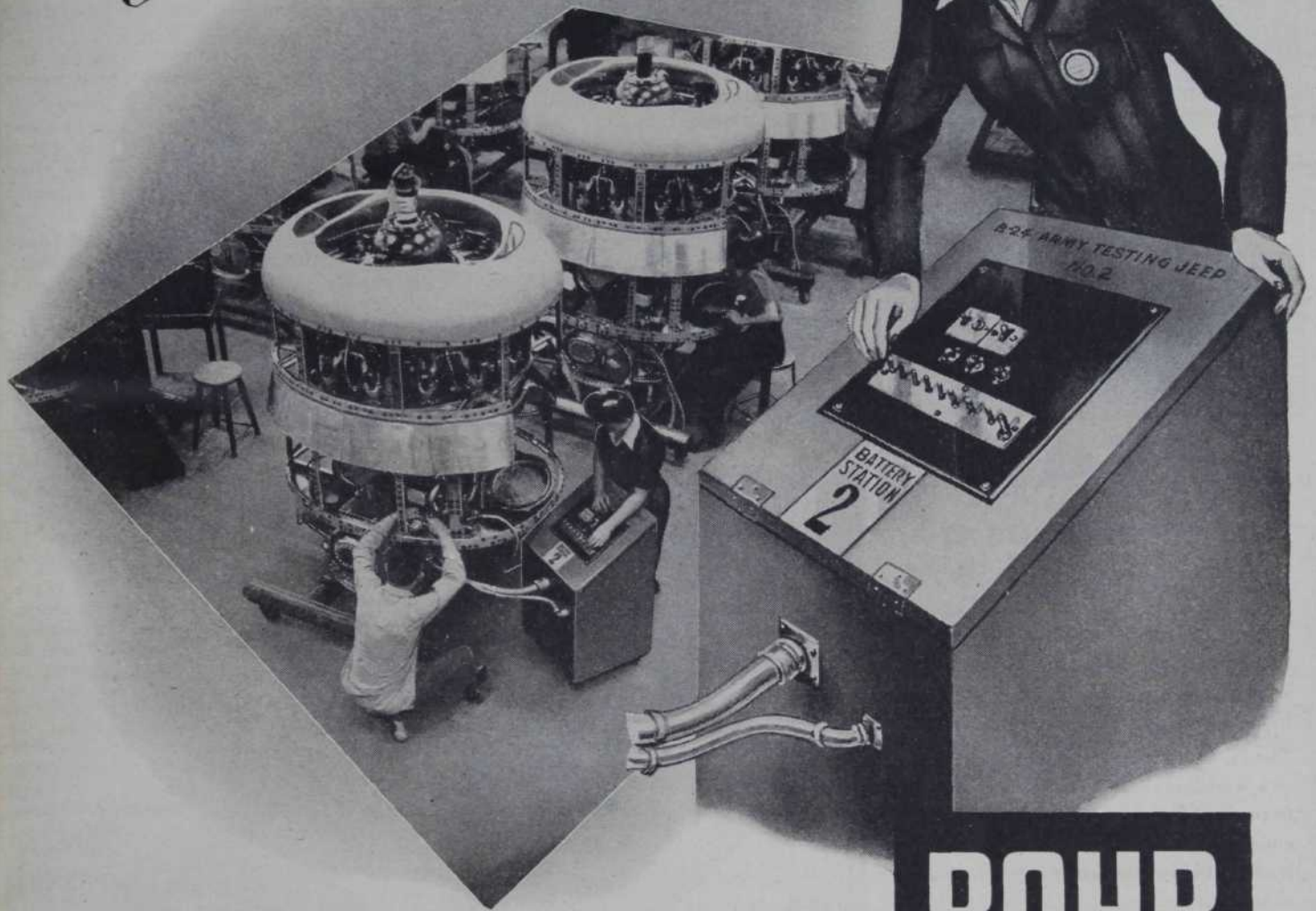
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Calling Dr. Jeep!...



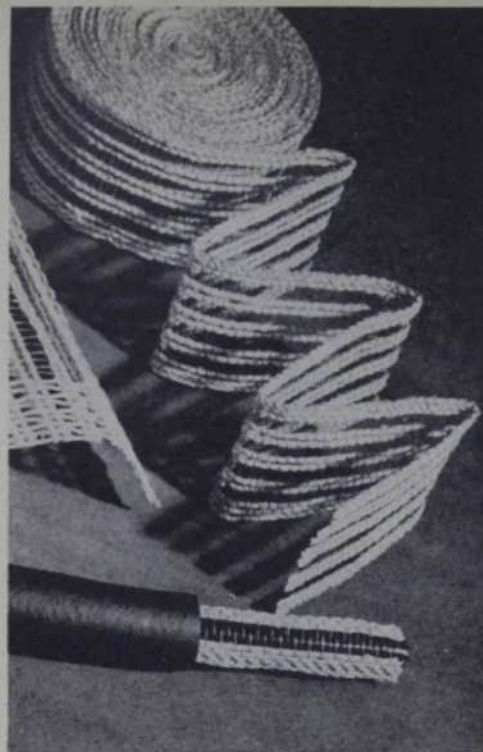
"Dr. Jeep" is one of the busiest fellows on the Rohr Production Line, wheeling up alongside of every motor nacelle and supercharger assembly for a new kind of final inspection. He makes the most thorough and accurate pre-flight check-up yet devised. ★ Rohr engineers developed several "Dr. Jeep" models, each for a specific task, to help Rohr Production Fighters maintain the efficiency of their skills, even while working at top speed. They are used to "okay" Liberator and Constellation motor nacelle assemblies and complicated supercharger installations. ★ These mechanical brains work rapidly, accomplishing with swiftness and certainty tasks formerly requiring thirty individual inspections with a variety of equipment. ★ "Dr. Jeep" is symbolic of developments in war plants throughout America, where engineers labor to give American bomber and fighter crews airplanes of maximum dependability and in great quantity. ★ Today we are "on the job to finish the job." After the war, this same American capacity to solve problems must be given a full opportunity to create the jobs that will win the peace we fight for.

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In nearly any shape, size and capacity

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PLANTS IN BINGHAMTON AND
BUFFALO, NEW YORK

Art Inspires Morale

THE FINE ART of painting and drawing is mixed pleasingly and profitably with the practical art of building war planes at the Bell Aircraft Corporation's Buffalo and Niagara Falls plants where workers voluntarily suggested the establishment of art classes, then supported the classes wholeheartedly.

Tony Sisti, internationally known artist, was making sketches throughout the plants as part of his duties as a member of the corporation's Visual Training Department. Sisti got the idea of establishing free art classes for the workers in their leisure hours after workers asked him if there were art classes or clubs available to them.

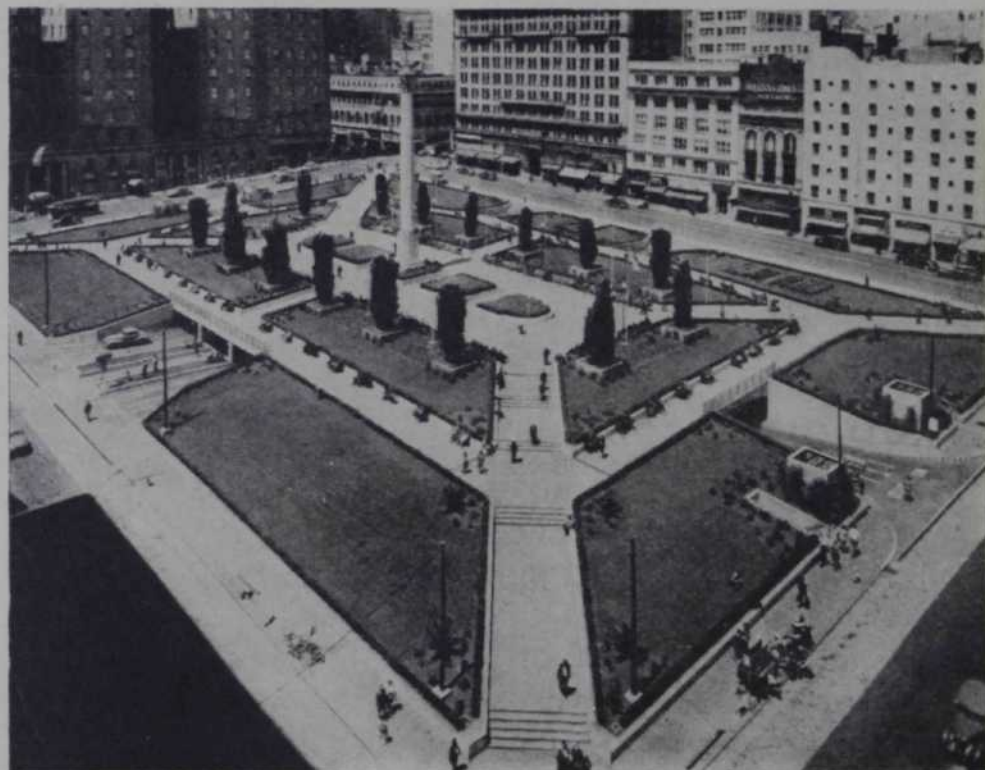
The workers supply their own materials and Sisti furnishes the instruction. There are two classes, one for each plant.

Classes are given in portrait and still life drawings and paintings, in pencil and charcoal, and in water colors and oils. The opportunity thus afforded proves an inspiring tonic for industrial morale. As Tony Sisti says:

"Most of the class members are beginners who have, until now, only dabbled in art. You'd be surprised how they come along. Besides being a good morale builder, art work gives these people a chance to do something they probably have wanted to do for many years.

"I find that without exception these folks had the spark of art work in them in earlier years. All they needed was a little encouragement.

"I like to work with these people because I know they are happy at their hobby."



Four-Story Garage Under Park

Many persons who stroll through Union Square Park in San Francisco are unaware that they are walking on the roof of the world's largest underground garage.

The structure is four stories deep, provides storage space for 1,700 cars, and is big enough to shelter 40,000 citizens in case of an air raid. It cost \$1,500,000, was financed in part by the Reconstruction Finance Corporation, and was sponsored by a group of busi-

ness men as a move to encourage downtown shopping and to prevent decentralization.

The structure is of reinforced concrete and is fireproof throughout.

Before Union Square Garage was built, the park, including its Dewey monument, was removed and the whole thing streamlined when replaced.

Union Square Garage has a staff of 100 workers, more than 80 of whom are women.



PATENT APPLIED FOR

Goodby "Standing Room Only"

This Newly-Designed Postwar "Threedex" Coach
Is The Answer To The Commuters' Prayer

No starry-eyed, visionary dream is this radical departure from the conventional suburban coach. It's real, it's practical—all its details expertly designed and engineered by Pullman-Standard. This newcomer among coach cars is air-conditioned and has a novel arrangement of upper and lower decks that *seats all passengers comfortably*. There are individual reading lights and space for stowing luggage out of the way. Gone will be jostling, standing in the aisles, in this car of the future—truly the answer to the commuters' prayer!

As yet this most modern postwar car is only on paper and you can't ride on a blueprint, to be sure. But it illustrates the advanced thinking Pullman-Standard is devoting to the railroads' postwar equipment. It is planning many more new types of cars to give passengers more for their money when the materials are available.

Just as Pullman-Standard's production today is devoted entirely to matériel to help our fighting men win speedy victory, so will our postwar planning and research program do much to help establish gainful employment in the peace to come.

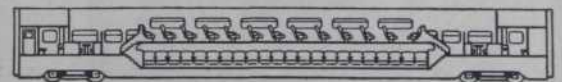


Diagram Showing Seating Arrangements

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CAR MANUFACTURING COMPANY

CHICAGO • ILLINOIS

World's largest builders of modern streamlined railroad cars

Offices in seven cities . . . Manufacturing plants in six cities



THE GAME SECTION. Four comfortable, semi-private sections are provided for cards and other games. In these quiet and pleasingly decorated nooks passengers find opportunities for social contacts which make familiar journeys enjoyable, daily experiences.



ADDITIONAL TOILET FACILITIES. The individual washrooms in this newly-designed "Threedex" coach are models of careful and fastidious planning. Smartly appointed, they are equipped with the most modern restroom fixtures and lighting facilities.

Use it up—make it do—
Wear it out—do without
and
BUY MORE WAR BONDS!

GET RID OF 'EM



Make your pipe-smoking ALL pleasure. Fill up with Country Doctor Pipe Mixture. Avoid B-B JEEBIES (Bite and Burn) which lurk unseen in ordinary tobaccos. Country Doctor's extraordinary blending experience, the skillful selection of the choicest tobaccos plus the perfect moistening agent . . . make possible this exclusive blend. Try Country Doctor Pipe Mixture. You'll like it.

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Lord of Sound, Glory Bound

(Continued from page 31)

hold Mr. Fly responsible for this network timidity. On the contrary at the conclusion of the inquiry into radio conducted by the Wheeler-White committee during the recently closed session of Congress he praised Chairman Fly for his candor and rapped the National Association of Broadcasters. The hearing had as its purpose the discovery of defects in the law.

"The broadcasters," he said, "did not seem to know what they want."

He indicated that there would be no further attempt to amend the law at this time.

When Mr. Fly was made chairman of the FCC in 1939 its affairs were in a mess. Some of the members were at swords' points with others. Contradictory statements were being issued. The Commission had no settled over-all policy. Chairman McNinch had been an ill man and his relations with the six other members of the seven-man Commission were about as unpleasant as possible. Fly had been a member of the FCC long enough to familiarize himself with the major problems, and at once set about correcting affairs within the walls. Whatever his methods, the discordant voices are rarely heard now. A witness before the Wheeler-White committee admitted that he had feared to do something he wished to do:

"Are you afraid of the Chairman or the Commission?"

"Both," said the witness.

Trouble with "boy lawyers"

THE most notable criticism of the mechanics of the Commission, as distinguished from its policies and methods, is that it is still hampered by the almost unregulated acts of its underlings. Like almost every other government department it is loaded up with young lawyers who decide cases with slight regard for history, law, precedent, and the human element. Stories are told of boy lawyers ranting at elderly men who have long held responsible positions in industry and the professions. It is only fair to say that the FCC points out that the seven men are physically unable to give close personal attention to the flood of cases and queries that come before the Commission.

All other government departments make the same defense; and the "boy lawyers"—Washington vernacular—continue to make trouble which their superiors spend much time straightening out later.

Mr. Fly is on better than good terms with the White House. He had the direct support of the White House when he insisted that the FCC perform certain monitoring and transmission activities which the Army and Navy considered were in conflict with the control of

the air which in wartime should be in military hands. Admiral King, Admiral Leahy, General Marshall and General Arnold signed a letter of protest. Fly fought back and the affair went to the White House. It was referred to the Bureau of the Budget, as is the usual rule, the Budget overruled the Admirals and the Generals. The FCC continued in its course.

"That letter was written 'in the corridor'" was the explanation of the FCC. "The Admirals and the Generals knew nothing about it. They just signed the letter when it came before them, without reading, as a part of the day's routine."

"They knew all about it," is the rebuttal of informed persons. "But what can they do? Fly wins."

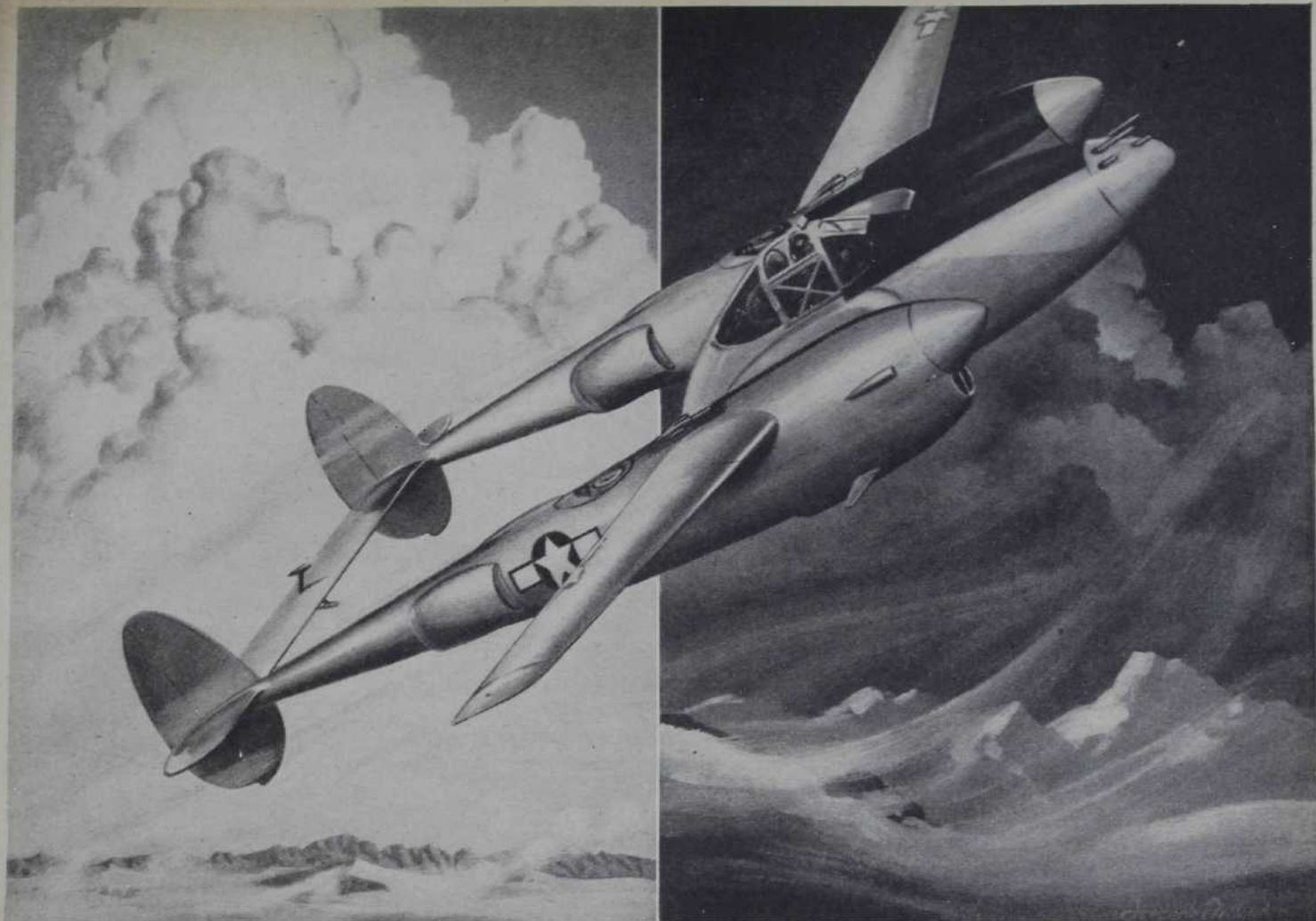
Politically minded family

THE records seem to show that Fly usually wins. At least he does not admit defeat. About the time that he abandoned the courthouse steps, put on his first white collar—his words—and took on a political job he discovered the uses of his voice. He became a kind of junior spellbinder around the county in which his family had lived almost ever since the Civil War. Two grandfathers fought in the Confederate Army. One died in it. The first Fly on record lived in Jamestown in 1636, but there may have been preceding Flys, and no one knows the earlier history of this Fly. All of the Flys, so far as the family tradition shows, were politically minded, persuasive, hot-tempered and able.

Because "Jim" Fly was hot stuff on the hustings, a forward looking congressman gave him an appointment to Annapolis. He more than made good in the Navy, winning various prizes and commendations. When he was commissioned as an ensign he found himself as a kind of sea lawyer. That title has an unpleasant ring in the ears of the merchant marine, but in the Navy it means that Fly was designated as the attorney to prosecute or defend officers charged with offenses against naval discipline. He was eminently successful in this. It began to look as though the Navy for him would become a kind of seagoing courthouse. Then there was a call to general quarters one day, he was climbing the rigging as fast as he could, the man above him was carrying a heavy piece of equipment, and dropped it, and it hit Ensign Fly on the head.

"Nothing serious."

Which means that it did not kill him. But it knocked him out, did some superficial damage to the nerves of his scalp, and for years he went bald in patches. Which, for that matter, he still does. He worries about that just as much as he worries about last summer's hailstorms. The incident, however, disgusted him



FROM DESERT HEAT TO ARCTIC COLD

Finger-Tip Control for the P-38 Passes Toughest Endurance Test!

Even the grueling hydraulic test in the 3000-pound pressure range by Wright Field engineers could not lick the Hycon high-pressure "Stratopower" pump. Not only did it breeze through test runs at the blistering heat of 160 degrees and at the bitter cold of 65 below zero, but it stood up under 550 continuous hours of operation—the equivalent of about 200,000 non-stop flying miles—and still had the staying qualities to repeat the test.

A remarkable record, yes! But not surprising. For another of our "Stratopower" pumps passes the acid test of active combat every day in every extreme of climate. Lockheed engineers, by installing aileron boosters actuated by this unique pump, have doubled this great plane's maneuverability and enabled it to fight better and higher—eight miles up in the stratosphere.

Until victory, our entire production of "Stratopower" pumps is reserved for fighting planes. And, to fill the tremendous demand, every available facility is being utilized at peak capacity.

LET'S ALL BACK THE ATTACK — BUY MORE WAR BONDS

For Industry's Postwar Uses

The compact high-pressure Hycon "Stratopower" pump, furnishing variable volume up to 3000 pounds per square inch—when no longer restricted by wartime needs—will do a great many hydraulic jobs better.

Out of the incredible demands of the war will come miracles of technological improvement to help rebuild a shattered world. More goods must be produced faster and cheaper. New machines will be created and old machines modernized. Hycon high-pressure hydraulic power units are ready with their contribution to this task.

If you have a problem of actuation in your postwar plan, or the modernization of your present equipment, Hycon will help to solve it. High-pressure (3000 pounds per square inch) pumps and valves, or assembled complete power units, are available for your requirements.

*For Tomorrow—Infinitely variable
pressure controls at YOUR fingertips*



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Stratopower Pump

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CHAIN means POSITIVE CONTROL

When invasion calls for dependable sea mule tractor and tug operation, there is no substitute for the positive power transmission and control which only chain can provide.

On the sea mule tractors and tugs Morse roller chain provides sure steering wheel control, and Morse

silent automotive timing chains on the engines help maintain smooth, trouble-free operation under severe conditions.

When you have a problem of power transmission or control, take advantage of the Morse engineer's background of a half century's experience. He invites your consultation.



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MARSH

with life as a naval lawyer. He resigned his commission and went into the law on land.

Those who remember his earlier days as a practitioner report that he was quiet, easy to get along with, and very likely to swing from his legal heels in the course of a trial.

He became chief counsel for the TVA, fought Wendell Willkie to a standstill, and between rounds was chummy and a teller of odd tales. When the TVA case was won another, older, and better known lawyer was credited with the particular wrinkle that won it.

Fly likes to get what is coming to him. He wrote Arthur Krock of the *New York Times* to this effect.

Krock checked up, found it was the fact, and gave the youngster his due. Krock is still surprised that the modest young lawyer who wrote him an almost timid letter of thanks should have developed into "a man who sees in any critic a sinister enemy—the other side is commanded by Lucifer." So are the reporters who cover the meetings of the FCC. Chairman Fly is likely to beat down their ears. Reports that he was ever a timid or kindly person are not being bought.

These statements are offered as a background against which Chairman Fly's most important present activities are to be read.

Communication for U. S.

WHEN the war is over he thinks a worldwide net of communications should be established to include all radio and wire facilities.

Whoever represents the rich, easy-going, sentimental United States in dealing with the other nations will be in a tough spot. To repeat, Mr. Fly likes them tough. The United States should have all the bases needful to meet other nations on a perfectly equal footing. It should be able to offer at least as good transmission rates as any other nation. It should be able to protect its business messages from the intelligent inspection of censors who are in effect agents of the business men of other countries. It should be able to send its news to every other country, free of interference of any sort, and receive news from other countries untouched and uncolored.

In the prewar days the United States was the bound boy in the world community.

It costs a business man in Buffalo about three times as much in message rates to sell a bill of goods to a customer in Delhi, India, as it costs a British business man in Delhi to sell a customer in Buffalo. American messages are read and reported on all over the world. There is no secret about this. It has always been the case. The British Cable and Wireless—which is in effect, although not in literal fact, government owned—sends messages at 30 cents a word from any point to any point in the British Empire. American messages are routed from point to point and a little toll collected at each point. These facts



WILL THEY EVER mount a Diesel Tractor alongside the cannon on a courthouse lawn to honor this great combat weapon?

Anyway, it's an idea! For here's a peace-time builder that's a sensation on the battlefield, winning praises from GIs and Generals alike—moving dirt, rock, sand, frozen tundra and jungle swamp—by the ton and in a hurry.

Tens of thousands of International Tractors are serving the military—in the Army, the Navy, the Marine Corps and the Air Forces. Tractors pave the way for airpower, footpower and firepower . . . *All honor to the men who drive them!*

While these tractors are fighting on the battlefield, it's up to all tractor

operators to conserve equipment here on the home front. *Make it last!* Harvester and the International Power Distributors stand ready to see you through.

If your need for new equipment is vital to the war effort, we will have equipment for you. If your need is less vital we will safeguard your present International Power with every service at our command.

And in the meantime, let's all remember that it's up to all of us to fight harder on the home front . . . fight on the food front—give to the blood bank—buy extra War Bonds—fight inflation. **FOR VICTORY.**

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago 1, Illinois

TODAY
A JUNGLE
TOMORROW
A RUNWAY

INTERNATIONAL HARVESTER

Power for Victory . . . Power for Peace

Battle Song of the Liberators

OUT of the West they have come, an army of flying men in a vast armada of planes, bent on a mission of liberation.

Conquered peoples have heard the drone of their engines, and looked up in new hope.

Oppressors have felt the weight of raining bombs, and seen inevitable doom in the endless flow

of American power and wrath. It is a fitting thing that one of our mightiest weapons in this war armada is a bomber named the Liberator.

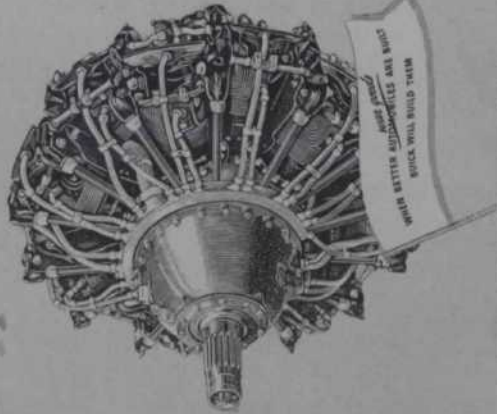
And it is a proud though sobering task to build the engines from which such planes get their power.

To date, more than 50,000 of these engines have come from Buick plants, enough to power 12,500 bombers, whose battle song of liberation is heard over every American battle front.

But we know, here at Buick, that our task is not to be measured in terms of numbers so much as by the way our work lives up to the expectations of American flyers.

So far, we are told, they have found that work good.

And good we intend to keep it till the battle song of the Liberators is heard in triumph around the world.



BUICK POWERS THE LIBERATOR*

*With Buick-built Pratt & Whitney air cooled, valve-in-head aircraft engines.

BUICK DIVISION OF GENERAL MOTORS

Every Sunday Afternoon—GENERAL MOTORS SYMPHONY OF THE AIR—NBC Network

The Army, Navy "E" proudly flies over all Buick plants.



were an outgrowth of past business conditions.

Mr. Fly wants to change them.

When the war is over we will have an immense network of military communications practically everywhere.

Our present friends and allies will wish to take over some parts of this net, obliterate other parts, control others, put in censors, controls, regulations and extra tolls.

This is inevitable. Commerce, politics, military needs and desires will be mixed in the mess.

For a unified system

MR. FLY thinks that we can only meet the government-controlled, influenced, or owned communications systems of the rest of the world by some unified system of our own. Whatever that system may be, it is essential that its parts stop undercutting each other on rates and facilities, and dealing in detail with foreign governments instead of in gross. It should have the backing of our own Government—or at least its friendly cooperation—so that our system will not be run over and bumped down by the systems of other countries. Our wire and radio companies agree in principle with what he says.

They have not yet agreed in detail. They think they see in the offing a great communications net, including all our forms of electrical transmission of messages, which shall be completely dominated by the Government under the leadership of James Lawrence Fly and his successors of the future. This may be inevitable. No one can at this moment say what the morrow may bring forth. Not even J. L. Fly. The companies—and Mr. Fly—agree that, if we permit foreign governments to push us around after this war as we certainly did after the First War, then we will find our commercial business—as well as our wire and radio business—sapped like maple trees in the spring. The business man in Buffalo will find himself perpetually undersold. But it is not an easy job to get our cable, land wire, telephone companies and 20-odd radio companies to unite on a plan. They have not gotten together as yet. The war may force them together. Again, no one knows.

The ultimate plan might call for government control of rates, bases, operations, wages, ownership, everything else. The one thing on which every one now seems agreed is that it is absolutely vital that, after the war, we shall be able to meet all foreign nations on even terms. That may mean that our system will be subsidized just as are the systems of other nations.

"I hope not," says Mr. Fly.

One would guess—there's no finding out from Fly—that on the showdown he would worry more about winning the game than about the methods used in winning it. Not that he would ever deal from the bottom of the deck. But on the courthouse steps in Dallas he learned a lot about bluffing, scaring the other fellow and the language of the eyes when



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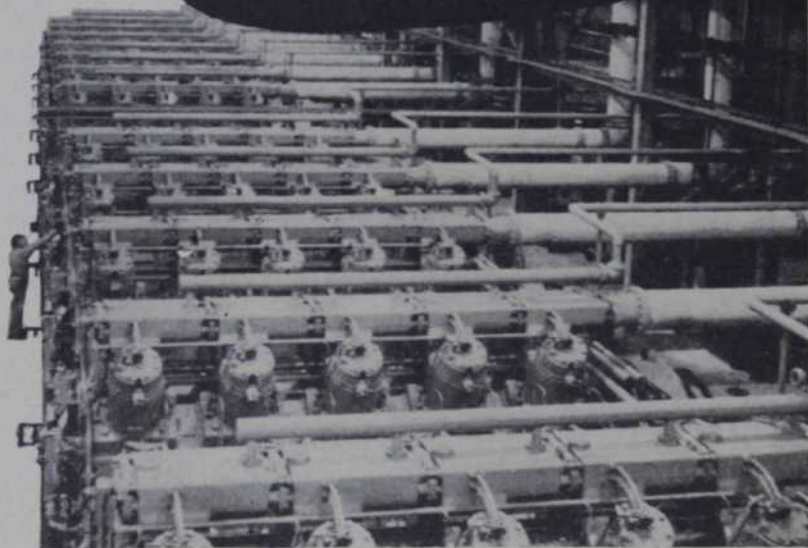
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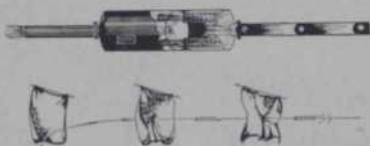
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HORSEPOWER!



THE SNUBBING PRINCIPLE



The energy of an exhaust slug traveling through a Snubber is like that of a golf ball driven through a series of thin blankets. The chambers in the Snubber act like blankets and gradually slow down the fast-moving exhaust slugs so they leave the tail pipe in a smooth, quiet flow.

TYPICAL INSTALLATION



The Diesel-operated municipal power plant at Rensselaer, Indiana, is Burgess Snubber equipped for quiet exhaust and efficient engine operation.

War plants require large amounts of electric current—often in excess of what can be taken from existing facilities. This is particularly true in extracting aluminum from bauxite ore, because the process is accomplished electrolytically.

At Project "X" of the Aluminum Company of America, power for driving the electric generators is supplied by 68 mighty gas and Diesel engines which develop a total of 123,050 horsepower!

Burgess Snubbers are used on all of the 68 engines at Project "X." They slow down the slugs of exhaust gas and dissipate their energy. The deafening exhaust roar is thus spent before it reaches the atmosphere and the gases emerge into the air in a quiet steady flow.

Wherever internal combustion engines are used, Burgess Snubbers can be safely recommended in all critical locations where noise cannot be tolerated, such as hospitals, hotels, office buildings, and in residential districts.

For quiet internal combustion engine operation, specify Burgess Snubbers.

BURGESS-MANNING COMPANY
 Chicago, Illinois

BURGESS DIESEL EXHAUST SNUBBERS

the game gets tight. There has not been a week since he became a member of the FCC that he has not been in some kind of a battle. He has learned to take trouble as it comes and pass it out as fast as he can. He is as much of a Democrat as he is a New Dealer. Maybe more of one in theory. President Hoover gave him his first appointment. Whatever moves forward in government office he has made have been due to his ability. He was only 31 years old when he made good as special attorney general in the restraint of trade cases in the sugar fight, against an array of Big Names. He likes to work late at night, he reads Americana, he is pretty good at bridge and tennis although he has no special social gifts. He has a pretty wife and two good-looking children—

He was born at Seagoville, Texas, 46 years ago.

It's a nice little town, he says, even if not many people ever heard of it.

One more fact. He thinks soap operas are loathsome. It is more polite to say "loathsome." The word he actually uses also begins with an "L."

Canada's Fish

LAST winter and this spring, for the first time in two years, Canadian housewives have been able to find some canned salmon on the grocery store's shelves. All of Canada's 1943 Pacific salmon pack was shipped to Great Britain except what is needed by the Red Cross for prisoner of war parcels and 200,000 cases for home consumption. Practically the entire 1942 pack went to Great Britain, a total of 1,725,000 cases of 48 pounds each, as did two-thirds of the 1941 pack.

Canned salmon, canned herring and frozen cod have been shipped in increasing quantities to Great Britain since the start of the war. Fish exports have increased from a value of \$29,000,000 in 1939 to \$52,000,000 in 1942. Canada is now supplying Great Britain with 35 per cent of its canned fish imports. Canned salmon increased from 633,000 cases in 1939 to 1,725,000 in 1942; canned herring from 94,400 cases each of 48 pounds to 1,300,000 cases in 1942. No frozen fish was exported to Great Britain from Canada in 1939, 9,860,000 pounds were shipped in 1940 and exports have continued in a lesser quantity since with 8,000,000 pounds shipped in 1943.

Last year, for the first time, the United Kingdom ordered salted fish from Canada, and has been supplied 2,370,000 pounds under the Combined Food Board plan. Canada is supplying the Board with 27,000,000 pounds of salted fish all told, representing more than 80,000,000 pounds of raw fish. Of this amount the United States is receiving nearly 8,500,000 pounds, Porto Rico close to 6,000,000 pounds, the British West Indies about 6,000,000 pounds, Central and Latin America nearly 3,500,000 pounds. Salted fish is used in large quantities in the tropics.—J. M.



“Our Dads mine the best fuel in the world”

These young folks, dressed in hats like their Daddies', have good reason to take pride in the job their fathers are doing.

For their fathers bring from the ground America's No. 1 source of energy and power.

They bring forth the essential fuel needed for the production of steel—the prime power of the nation's railroad system—and the greatest source of electrical energy.

As you've probably guessed—the name of that fuel is bituminous coal.

And many advances have happened in coal mining, just as in other industries during recent years.

Today coal miners are paid better than the average wage of industry as a whole.

Their work is being constantly lightened and their

efforts made more productive by modernization. 90% of all bituminous coal produced from underground workings is electrically cut and transported, and over half of all coal is loaded by mechanical shovels.

This fact has made possible the increases in volume of coal mined which the war effort has required.

It is also an important reason why—despite manpower shortages—America's bituminous coal industry is supplying an all-time record volume of coal.

BITUMINOUS COAL
Institute

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BUY MORE WAR BONDS

Laws to Keep You Safer

A COMMONSENSE METHOD of making laws has made possible our national traffic system which permits automobiles to move from one end of the country to the other with few stops by constables

THE Uniform Vehicle Code—that unusual law which enables the average motorist to drive across the country without landing in jail—has just had a thorough revision at the hands of state and local officials from all parts of the country, meeting at the United States Chamber of Commerce with representatives of automobile clubs and manufacturers, traffic engineers, safety organizations, insurance underwriters and other interested groups.

This Code was first written in 1926 for the guidance of states in enacting uniform motor control laws. As the states adopted it, the average motorist could drive farther without running afoul of the strange laws which so often plagued him 20 years or more ago.

By an evolutionary process this original code has been supplemented until it now comprises five separate acts, which state legislatures can adopt either separately or as a whole. These include optional provisions that give flexibility while still maintaining the principle of standardization. The titles of these acts are:

Act I—Uniform motor vehicle administration, registration, certificate of title, and antitheft act.

Act II—Uniform motor vehicle operators' and chauffeurs' license act.

Act III—Uniform motor vehicle civil liability act.

Act IV—Uniform motor vehicle safety responsibility act.

Act V—Uniform act regulating traffic on highways.

In addition, the conference has prepared a set of model traffic ordinances for enactment by municipalities. It has also worked with the American Association of State Highway Officials and the Institute of Traffic Engineers in sponsoring a manual on uniform traffic control devices, including signs, signals, markings, and islands.

In preparing the original code and its revisions the objective has been to recognize and standardize existing practice. For this reason there never has been, and probably never will be, absolute uniformity in motor vehicle regulations among the several states. Some necessarily serve as pioneers, and their experience is later considered for incorporation into the code.

This procedure for promoting uniformity in motor vehicle laws has worked out well. The uniform vehicle code, as a whole or in part, has been

adopted by 21 states substantially as written. An additional 19 states and the District of Columbia follow it in principle, if not in language. Only eight states still stick by codes of their own. It is interesting to note that several of the non-conformists are states which, before the uniform code was written, were leaders in the development of efficient automobile regulations. The fact that their own laws were so excellent at that time deterred them from adopting the standard code.

The original code, first issued in 1926, has been revised several times—in 1930, 1934, 1938, and now, in 1944, it is once

sary to redefine an intersection, so that it would be clear that in crossing a divided highway with a separation strip 30 feet or more wide two intersections are traversed rather than one.

Provisions governing right and left turns were rewritten to place greater responsibility on the driver making the turn, and to emphasize the importance of making such turns from the proper part of the roadway. Conditions under which it is permissible to overtake and pass a car on its right side were also clarified, and the restriction against following another car too closely made more emphatic. State authorities were

given more control over parking, both in the open country and within municipalities, where angle parking sometimes hinders the movement of traffic on through routes. The definition of a "business district" was clarified.

Because of the heavy proportion of accident victims among the ranks of the pedestrians, much consideration was also given to the problem of controlling their actions. A move to make universal compliance with traffic lights mandatory was not adopted, but the code was amended to authorize local authorities to adopt such a regulation. An added provision directs pedestrians to use sidewalks and footpaths instead of the roadway whenever these facilities are available and, if not, to walk facing oncoming traffic wherever practicable.

Perhaps the most striking change is the addition, for the first time, of a method for determining the effect of alcohol upon a motorist's ability to drive. A prohibition against driving while under the influence of liquor has always been a part of the code, but the legal proof of this condition has hitherto depended entirely upon the observation and testimony of witnesses. Now it is provided that cognizance may be taken of the alcoholic content of the driver's breath, blood, urine, or other bodily substance, as determined by a laboratory test. If the result shows less than 0.05 per cent by weight of alcohol, he is presumed to be

more being brought up to date. Undoubtedly additional changes will be necessary in the future.

In approaching the current revision the conference found the uniform vehicle code to be still basically sound and steadily growing in acceptance. Aside from a few minor revisions and clarifications in language, the principal task was to add new sections made necessary by recent developments, notably the rapid extension of the modern high-speed superhighway, with its multiple lanes and divided roadways. This made it neces-



“...where men have a chance to progress as far as their beliefs, desires and industriousness can take them.”



NEWS of the day brings us thrilling records of the superb achievements of our soldiers, sailors and flyers. But news cannot glamorize the tremendous capacity of our farmers, manufacturers, miners, scientists . . . so highly

developed through American private *competitive enterprise*.

The imagination and initiative of business men, large and small, are almost wholly responsible for the industrial growth which has enabled America so efficiently to support its fighting forces. Yet neither initiative nor imagination can flourish for long without incentive. Incentive thrives only with freedom . . . freedom of opportunity to take advantage of openings ahead.

America's growth has come through the individual's right to risk his time and toil in the hope of bettering his station

in life. Curb this right and you stifle the greatest single incentive for individual progress and prosperity.

In a peacetime economy, moreover, competitive enterprise can give our young men . . . the men who are risking their lives in the cause of freedom . . . the best chance to progress as far as their beliefs, desires and industriousness can take them.

We believe they will insist on this fundamental right. We think they are entitled to no less.



When the world is once more at peace the automobile industry . . . manufacturing, selling and servicing . . . should again offer splendid opportunities to men of energy and integrity.

And we contend that in all worthy undertakings, every individual deserves the right to prosper in proportion to his ambition and ability.



Tune in Major Bowes and His Amateurs, Thursdays, 9 P. M., E. W. T., CBS Network

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"THE LARGEST OF MANY EXCELLENT BANKS IN THE NORTHWEST"

Statement of Condition June 30, 1944

RESOURCES	Totals
Cash and Due from Banks . . .	\$119,779,588.61
United States Government Securities	
Direct and Fully Guaranteed	315,176,098.89
State, Municipal and Other	
Public Securities	25,684,039.99
Other Bonds and Securities . . .	1,718,903.62
	\$462,358,631.11
Loans and Discounts	90,673,716.49
Federal Reserve Bank Stock	480,000.00
Bank Buildings, Vaults, Furniture and Fixtures	1,899,554.94
Interest Earned Not Received	1,036,416.43
Customers' Liability Under Letters of Credit and Acceptances	6,082,622.91
TOTAL	\$562,530,941.88

LIABILITIES	
Capital Stock	\$10,000,000.00
Surplus	6,000,000.00
Undivided Profits	2,739,575.23
Reserves for Contingencies . . .	2,897,833.71
	\$ 21,637,408.94
Reserves for Interest, Taxes, etc.	1,819,897.36
Discount Collected Not Earned	135,948.69
Letters of Credit and Acceptances	6,082,622.91
Deposits	532,855,063.98
TOTAL	\$562,530,941.88

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System



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SEATTLE-FIRST NATIONAL BANK
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sober. If the test reveals 0.15 per cent of alcohol or more, he is presumed to be under the influence. Results between 0.05 and 0.15 per cent are inconclusive, and other evidence must be considered in determining his condition.

The growing use of the bicycle caused other changes. The Conference several years ago included in its model traffic ordinance for municipalities a series of regulations classifying the bicycle as a vehicle, and requiring riders to obey all pertinent regulations for the control of traffic. Previous provisions of the uniform traffic act for state enactment have now been amplified to correspond.

Of interest to the younger generation is a provision added to the uniform motor vehicle operators' license act authorizing the issuance of special learner's permits to children under the legal driving age. These will be valid only in specially equipped driver-training cars operated on designated sections of the highway under the supervision of an approved instructor. This change was made to facilitate driver-training courses in the high schools.

In the penalties sections, the optional jail sentence was eliminated as a punishment for first-offense convictions of minor violations because this has had the effect, in certain jurisdictions, of removing such trials from the cognizance of the lower courts. Clearer definitions have also been given to the terms suspension, cancellation, and revocation of licenses. Convictions for minor violations not involving moving vehicles need no longer be reported to a central authority.

Few lighting changes

PENDING completion of certain studies now under way, only minor changes were voted in lighting regulations. The optional back-up light was exempted from a general provision that all lights directed to the rear, except stop lights, must be red in color, and a provision added that the back-up light must not be used while the car is going forward. Flashing white turn-indicator lights on the front of a car were freed from a limitation to 300 candlepower, as it has been found that greater brilliance is necessary to make them clearly apparent in bright sunlight.

All of these changes, and many others of a minor nature, are as yet no more than recommendations. They will be drafted into the model code and widely distributed for criticism and comment, after which it is expected that state and municipal authorities will give careful consideration to their inclusion in existing traffic laws and ordinances. While this process will take time, it also gives insurance against ill-considered and too hasty action. Each change that is finally adopted will be one more step toward the goal of consistency in motor vehicle regulation, the achievement of which will mean fewer accidents and greater peace of mind to the traveling motorist. And the happy time is coming when his number will be legion.

UPSTAIRS this is my buddy



A GOOD WEAPON speaks to men in a language beyond words. Far back in the air-gunner's memory, as he waits with his machine gun in the cold void, are other things that spoke the same language. His first set of electric trains, perhaps. Or his first dog.

So the polished steel of his machine gun... the precise rows of bullets... the warm feel of a small rubber pad stamped "USKON"* on the breech, become a part of him in battle.

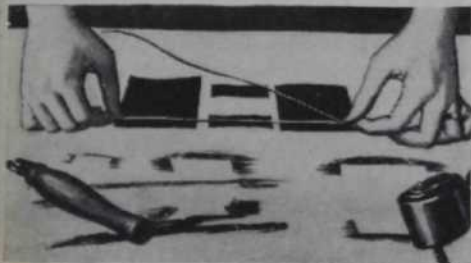
He knows that small rubber pad makes certain that the instant his finger squeezes the trigger a burst of bullets will answer.

He may not know that an amazing, unheard-of new kind of rubber first had to be "sweated out" in the laboratory. That rubber—the world's best known electrical insulator—had to be turned through science into rubber that would conduct electricity.

Today the engineering of United States Rubber Company starts at the side of the man in combat. Then flows back to our laboratories. We call it "serving through science." It has put over thirty thousand different products of rubber research into the hands of our fighting men. These products speak in the fighting man's language.



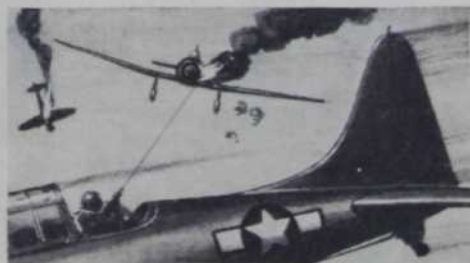
SERVING THROUGH SCIENCE



HANDS THAT WARM A GUNNER'S HEART: are hands that assemble the conductive rubber heating pads to keep his machine gun or aerial cannon ready for instantaneous use—safe from jamming due to cold, even in temperatures of 20°F., and more, below zero.



WHEN THE LIGHTS COME ON! Two electric circuits are shown in the diagram above. At the top the light glows because electricity flows through the inserted pad of USKON*. Ordinary rubber is inserted in the circuit below. The bulb shows no light because the current does not flow.



RIGHT TIME—RIGHT PLACE! Originally developed for the elimination of explosions in munitions and other war plants, resulting from sparking static electricity, and from friction produced sparks, USKON* was made into shoe soles for workers, powder boxes, trays, table tops, transmission belts and the like.

Listen to the Philharmonic-Symphony program over the CBS network Sunday afternoon, 3:00 to 4:30 E.W.T. Carl Van Doren and a guest star present an interlude of historical significance.

*Reg. U. S. Pat. Off.

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"I forgot" — WON'T WIN THE WAR



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Here's a MEMORY SYSTEM that NEVER FORGETS

And there's no "forgetting" on the production line at Douglas Aircraft, Boeing and many other large industries. ROBINSON REMINDERS are standard at these plants and they are keeping the production line rolling.

In this original, perforated coupon notebook ... you jot each note on a separate coupon ... and when attended to, tear it out ... only live notes remain.

Fillers are standard and obtainable everywhere. WRITE to our Industrial Development Department for complete information.

ROBINSON REMINDERS

WESTFIELD, MASS.

The Farmer Plays It Safe

(Continued from page 24)

ed, and the Government has promised to support farm prices for two years after the war. But you can lose money mighty fast sometimes buying cattle of someone else, then buying grain to feed them.

You will find more farmers thinking in terms of doing what they can do themselves in terms of the whole job. Some of the dairymen who sold out a while ago are reestablishing themselves from the ground up. They plan to grow a herd—not buy one. On some of the very poor farms in the South, I found farmers leaving for more profitable employment outside.

Some farms are better unused

"IT'S been a good thing," a soil conservation man remarked to me. "Some of these hillside farms made so little that people are doing more for the country and themselves by working outside. When they get through with the war, they will have a little stake."

So Mr. Goodman is sort of sitting this boom out until he can discern its direction. It was a Goodman from North Carolina who remarked:

"Farmers are perplexed as to the future. We're not sure what to think. We do know that we have always had booms and depressions, and probably things are no exception now."

He has some questions:

First, he wants to know how this European demand for food is going to be financed. Of course we may tide things along for a year or two, but beyond that he is puzzled. Will we buy from them or will we let them have credit? Will they want farm products or farm machinery?

Second, he wants proof of this post-war increased buying power in America. He knows he's got to have customers with money.

Third, there is the matter of the value of our money. He knows that lies at the root of the buying of much farm land. Will dollars be worth less and things worth more? Or will it be the other way around?

Two farmers out West were arguing about how and when they would settle up.

"Well, I'm not going to let you pay me in 50-cent dollars," said one.

The other replied, "And I'm not going to pay you with 50-cent wheat either."

Answer those questions for Mr. Goodman and he'll begin reading the circulars and the advertisements in a big way. He's interested in houses and modern conveniences, refrigeration, machines that will save labor, automobiles, tractors, pumps, pipes, and all kinds of appliances that go with electric power.

He will be a good market for those business men who are willing to take an interest in his problems and, if need be,



A real token of Maryland hospitality. The rationed supply is limited, but what there is, is very, very good.

NATIONAL PREMIUM BEER



Send 10c for our fine old MARYLAND RECIPE BOOK NATIONAL BREWING COMPANY, BALTIMORE 24, MD.

Speed Sweep WITH A BACK OF STEEL



Makes Light Work Out of Tough Sweeping Jobs

Steel back of Speed Sweep brushes is the basis of unique construction for faster, easier, better sweeping. Block is ¼ usual size — easier to handle. Tufts of longer, better fibres are more compact — provide "spring and snap" action. Handle instantly adjustable to height of sweeper — reduces fatigue and strain. Speed Sweep brushes are built to outlast ordinary brushes 3 to 1.

FULLY GUARANTEED

Since Pearl Harbor Speed Sweep brushes have proved their superiority in many thousands of factories under varied conditions. They are unconditionally guaranteed to meet your requirements. Prompt shipment on AA-5 or higher priority rating. Write for styles, sizes, and prices today.



Milwaukee Dustless BRUSH COMPANY

522 N. 22nd St., Milwaukee 3, Wis.

give him a little help in solving them.

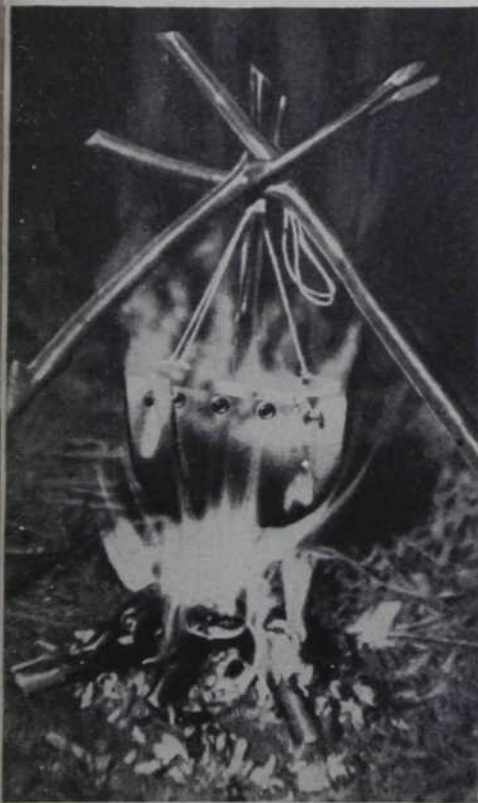
It will be a great day when Mr. Goodman makes sure he has the go-ahead signal. True, there are some indications that the total farm mortgage debt may just now be passing its low point and turning upward. But the wise farmers bought land quite a while back.

With three grandsons off in the service now, our Mr. Goodman does not have as much time to sit and think as he did a while ago. But the other night when the stars were beginning to come out, we sat on his little lawn.

Whether it was the magic of the Goodman philosophy or not, I don't know, but while he was thinking away, I was thinking some, too. Suddenly I wondered if it wasn't Mr. Goodman who was holding off that postwar depression. Tornadoes don't hurt people in cyclone cellars. Nor do depressions come to people who have prepared for them.

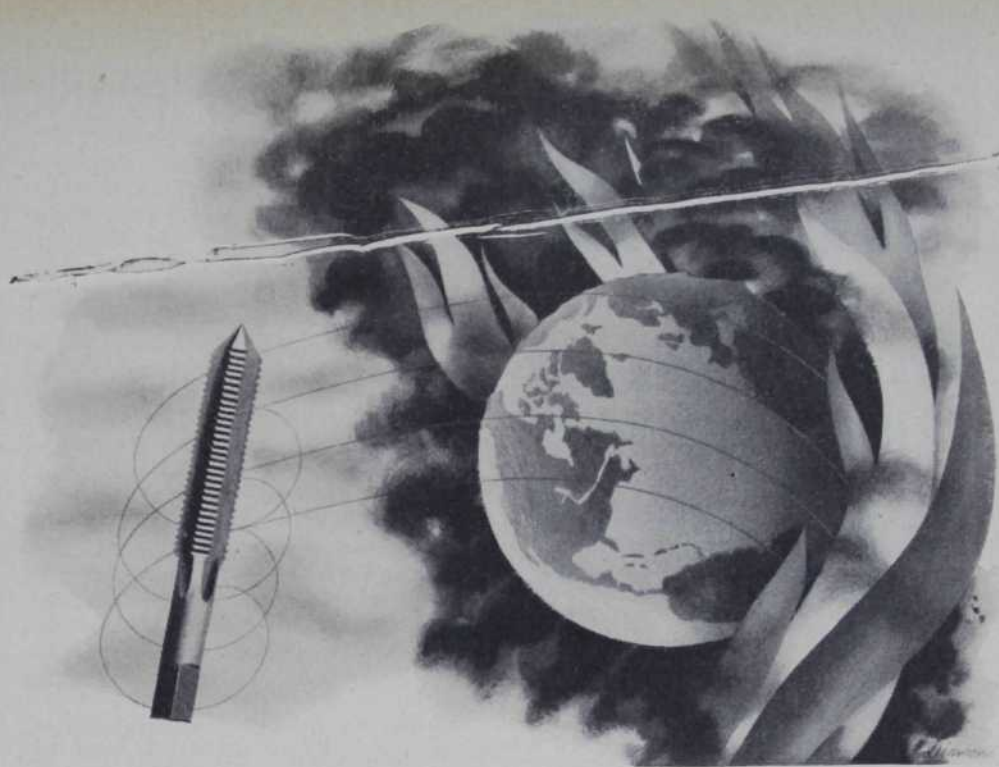
I explained it all to him. He listened patiently.

"Golly!" he exclaimed. "They've just been telling me my food's been runnin' the war. You mean to tell me that I got to take on runnin' these postwar planners, too?"



A Folding Kettle

An added convenience for those postwar camping trips is a collapsible container made of asbestos fabric impregnated with synthetic rubber by the United States Rubber Company. Cooking utensils never did pack easily in our camping days. Now the Army uses it for emergency cooking and for sterilizing instruments.



THREADS FOR A WORLD TORN TO SHREDS

THE FUTURE OF MANKIND hangs by the bright shining threads of steel... strong and enduring Threads which will help to make a world, shattered by disastrous years of war, whole again.

These threads will help us resume once again the role of normal living, will help provide the machinery of Peace which will create jobs for millions of returning soldiers and help turn aside the threat of depression. Will bring to waiting markets all over the world the blessings of remarkable new American inventions and discoveries.

Detroit Ground Taps, Threaded Gages and Custom Threading Tools for highly specialized equipment will help create the machinery which will turn out many of the wondrous new conveniences of the postwar world.

Today the performance of our Threading Tools in many of America's war plants is a justification of the rigid standards for accuracy—*phenomenal accuracy*—which every Tap and Tool must meet in our shop. This unvarying precision is the Detroit Tap & Tool Company's pledge to America's future... to the day when production for Peace will start.

Send for your free copy of "Threads of Destiny," a new booklet tracing the development of the machine screw thread. Please make your request on your company letterhead.



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NEW



QUICK-START Fluorescent Lamp Ballast

The one disadvantage of fluorescent lighting has now been overcome. Time-lag between turning on of switch and lighting of the lamp is a thing of the past. The new Acme Quick-Start fluorescent ballast for use with "Instant-Start" fluorescent lamps eliminates the need for starters and provides instantaneous lamp light. For detailed information write for Bulletin 164.

Another New Advance in Cold Cathode Lighting

The new Acme Cold Cathode lamp ballast is designed for standard 93"—25 mm tubes. Keep informed on the new developments in Cold Cathode lighting. Write for Bulletin 165.

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... let Turk engineers help you put fabrics to work in the development of new products or in improving your product, its operation or salability . . . write for complete information.

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PRODUCTS MADE OF FABRICS

How Much Help Will Veterans Really Need?

(Continued from page 30)

ployers and personnel directors in some cases have refused to employ or to rehire applicants that have been designated as such by either the Army or Navy. Now no one maintains that a real mental or physical fault should be kept secret from employers, but employers should know that the Army's term "incompetent" means only that a soldier or draftee is illiterate; and that such a term as "psychoneurotic" simply means maladjustments caused by regimentation, discipline, loss of emotional security, terror of combat, or radical changes in environment. These terms do not mean that the applicant is unsuitable for employment or civil pursuits; they only mean "not suited for military service." Many executives and scientists would no doubt find army life or the horrors of combat too much for them.

Second, is the need for Subsequent or Second Injury Provisions for the benefit of the employer, the handicapped worker and insurance companies under-

"second injury funds" by law for the benefit of all concerned. Other states are considering an approach through changes in insurance rate structures.

As for the insurance companies, all are eager to help solve any problem of workmen's compensation insurance in order to advance the useful employment of disabled veterans.

When these two difficulties are out of the way, the nation can well afford to look confidently ahead to the homecoming of its fighting men.

A recent cartoon depicted a couple of soldiers reading their mail while squatting in a much-battered fox hole.

"It says here, Hank," exclaims one to the other, "that we are promised our old jobs back or, if we want, we can learn a trade or go back to school for nothing and knock down \$50 a month besides—and we get 300 smackers in mustering out—"

"Yeah," interrupts Hank. "But do they guarantee my old girl back?"

Such provisions are not available yet.



More than 2,000,000 veterans will prefer to take further training offered by the G. I. Bill before returning to work

writing workmen's compensation protection. There is need for clarity in this field. At present an employer who employs a veteran lacking, say, an arm or a leg, faces serious problems if the worker loses the remaining arm or leg in a second injury. The second injury, although it actually caused only "partial disability" results in total disability. Who pays how much to whom?

Some of the states have established

But most everything else has been considered.

The trade associations, chambers of commerce and other local organizations which are preparing to give soldiers from this war the best homecoming in history can find much encouragement in these figures. The fact that the problem is of manageable size will mean for them, not reduced effort, but greater accomplishment.

Tax Relief When Figures Fail

(Continued from page 27)

facturer, which had only limited profits in 1936-38 because of poor management, changed its management in 1939 with favorable results. Ordinarily this taxpayer would be subject to high excess-profits taxes on the later years' earnings, but Section 722 offers a means of relief.

Change in Character of Business:

A newspaper corporation, with a fiscal year ending in March, late in 1939 acquired the franchises of a rival paper. Whereas previously both papers had barely run in the black, thereafter the surviving paper became prosperous. Relief under Section 722 is possible, although in this case it is limited by the amount of constructive excess-profits net income established for the last year of the base period.

Loss of Market:

A manufacturer of an automotive part for years sold his entire output to a single customer. In 1937 that customer began to make the product himself. The taxpayer suddenly had to find new customers and it was not until 1940 that its business was again at a normal level. Although the business has since grown appreciably, without the relief of Section 722 the taxpayer would be unfairly penalized.

Price War:

In a certain industry a price war depressed earnings during part of the base period. A taxpayer in this industry shows that, as a result of the price war, it recorded net losses in 1938 and 1939, whereas in the subsequent years profits were normal. The corporation demonstrates that in normal times its profits fluctuate in close sympathy with the general business situation and it presents to the Bureau an estimate of what its base-period net income would have been, had there been no price war. The Bureau may use this estimate as the basis for granting relief.

Note, however, that, if such price wars are common in the taxpayer's industry, or if the bad years 1938 and 1939 were in its case balanced by better-than-normal business in 1936 and 1937, this taxpayer cannot obtain relief under 722.

Cyclical Industry:

A currently prosperous manufacturer in the machine tool industry, which is subject to cyclical variations deviating substantially from the general business pattern, suffered depression from 1930 until 1938. It demonstrates to the Bureau that, for it, 1936-39 was not a period of normal earnings. Presenting data on its earnings history over a period of years, it constructs a four-year "base period" as a basis for relief.

In cyclic case, as in all other cases under 722 (b) (3), a taxpayer's appeal is considered in connection with relief granted to others.

Poor Crop: A food canner demonstrates that for it 1936-39 was distinctly subnormal, because crops were exceptionally poor. On the basis of more normal earlier years of operation the taxpayer may submit a constructive base-period net income and seek relief. But note the word "exceptionally."

If you think your company is eligible for relief under Section 722, what do you do? Section 722 itself does not tell you, but it sets up guideposts. The first thing to do is to read the regulations and other releases of the Bureau. In all probability a bulletin on the subject will eventually be available. Original applications are filed with the Commissioner in Washington; not with the Collector of Internal Revenue for your district except in instances where it is possible to defer the payment of a part of the tax. Internal Revenue Service Form 991 is both a claim for refund and an application for relief.

It is necessary to supplement Form 991 with supporting statistical and other presentations giving particulars. Just what form this material may take is mainly up to you.

You may, for example, base your case on the experience of a given competitor or of your industry as a whole during 1936-39.

You may justify a certain constructive base-period income on the basis of your own earnings history in the years before 1936. If production of only one of your company's products was interrupted, the earnings on other products may be cited in constructing a new base-period net income.

Your purpose is to show that, without relief under Section 722 your excess-profits tax will be "excessive and discriminatory," because your earnings in the 1936-39 base period as a whole were either abnormally depressed or non-existent for one or more of the causes set forth in the regulations. The list of these causes includes.

1. Production during the base period was interrupted or diminished by peculiar or unusual "physical events"; or

2. The taxpayer's business during the base period was depressed by temporary economic circumstances unusual (a) in its case, or (b) in the case of its industry; or

3. The taxpayer's business during the base period was depressed because conditions generally prevalent in its industry subjected it to: (a) a profits cycle materially different from the general business cycle; or (b) sporadic periods

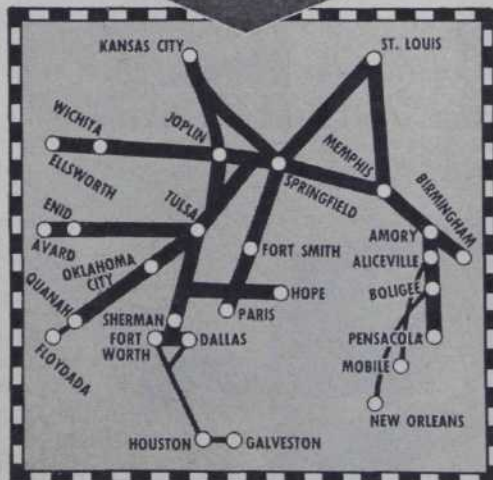
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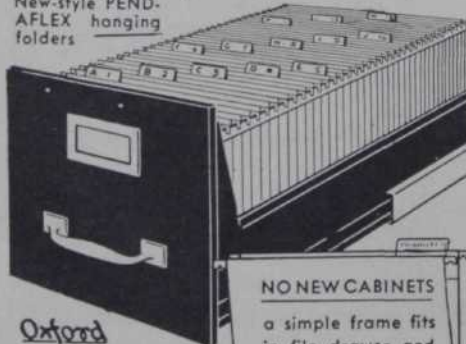
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of high production and profits not adequately reflected in 1936-39; or

4. The taxpayer during or just before the base period either newly entered or "changed the character of" the business and the actual base-period net income therefore does not reflect normal operations; or

5. The taxpayer can show any other pertinent factor not inconsistent with the principles laid down in subsection 722 (b); or

6. The taxpayer would otherwise be on the invested-capital base and the statutory excess-profits credit thereunder is inadequate because:

(a) In the taxpayer's business intangible assets not includible in invested capital make an important contribution to income; or

(b) In the taxpayer's business capital is not an important income-producing factor; or

(c) The taxpayer's invested capital is abnormally low.

In connection with 3 (a), mere deviation from the national business pattern is not sufficient to obtain relief. The deviation must be substantial, and the taxpayer's business as well as those of its industry must have been depressed.

In connection with cause 4, if the taxpayer's earnings did not reach by the end of the base period the level they would then have reached had the taxpayer entered or changed the character of its business two years sooner than it actually did, the taxpayer shall be deemed to have done so at such earlier time.

"Change in the character of the business" includes: a change in the operation or management, a difference in the products or services offered, a difference in production or operation capacity, a difference in the ratio of non-borrowed to total capital, or the acquisition before 1940 of any of the assets of a competitor resulting in the elimination or diminution of such competitor.

"Change in the character of the business" also embraces certain other circumstances, notably where such change, begun before 1940, resulted in increased capacity for production or operation after the close of the base period.

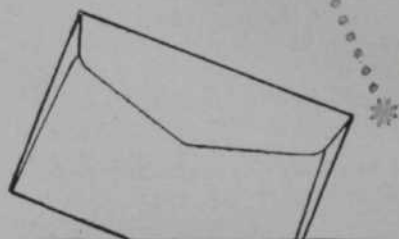
The Bureau will study the favorable as well as the unfavorable factors in a taxpayer's earnings record. A taxpayer, for example, who is already receiving adequate relief under the statutory "growth formula," can hardly persuade the Bureau that it is entitled to additional relief under 722 for reasons connected solely with its growth. Or, if in part of the base period the taxpayer had abnormally depressed earnings and in another part, abnormally high earnings, the Bureau will look at both:

Relief may be sought for any taxable year after 1939, provided it is sought within the time allowed for filing claims for refund, which is generally within three years of the filing of the taxpayer's

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return. Form 991 may be filed along with the tax return, if payment of part of the tax is to be deferred. In other instances it must be filed with the Commissioner after the return is filed. Thus, on a return filed in March, 1944, to cover 1943 income, Section 722 relief may be sought any time up to March, 1947. It is believed that, once a constructive base-period net income is accepted by the Treasury for 722 purposes, the taxpayer is not precluded from asking for a second adjustment.

If the excess-profits tax exceeds 50 per cent of the taxpayer's normal-tax net income, the taxpayer may defer payment of tax equal to 33 per cent of the reduction being claimed, and it is in this sort of case that the application may be filed with the return.

The fact that a company's excess-profits-tax liability is small or zero does not preclude application for relief under 722.

If the taxpayer does not agree with the agent's decision on its Form 991 application, it may informally appeal to the technical staff in the field. If the taxpayer does not wish to accept the Commissioner's decision, it may obtain a "statutory notice of rejection," on the basis of which it may petition the Tax Court.

Where the taxpayer and Commissioner do agree, refunds of \$20,000 or more are made a matter of public record. This summer, it is expected, the Federal Register will carry a list of Section 722 refunds made through June 30, 1944. Relatively few refunds have thus far been made, and these are believed to be clear-cut in nature.

Whenever the relief to be accorded a taxpayer is \$75,000 or more, the Bureau must report it to the Congressional Joint Committee on Internal Revenue Taxation, which may challenge the Bureau's decision.

The purpose of this, of course, is to ascertain that Section 722, in serving its purpose in relieving tax hardship, does not become, as one official expressed it, "a business man's gravy train." Although that seems unlikely, students of the law agree that the success of the section will depend upon respect for the public interest among business men.



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EASTERN STANDARD TIME

AUG.	Latitude +30°		Latitude +35°	
	SUNRISE	SUNSET	SUNRISE	SUNSET
1	5:19	6:53	5:09	7:03
6	5:22	6:50	5:12	6:58
11	5:25	6:45	5:16	6:53
16	5:28	6:40	5:20	6:47
21	5:31	6:35	5:24	6:41
26	5:33	6:30	5:27	6:35
31	5:36	6:26	5:31	6:29

AUG.	Latitude +40°		Latitude +45°	
	SUNRISE	SUNSET	SUNRISE	SUNSET
1	4:58	7:14	4:45	7:27
6	5:02	7:08	4:51	7:20
11	5:07	7:02	4:57	7:13
16	5:12	6:56	5:03	7:05
21	5:17	6:49	5:08	6:57
26	5:21	6:41	5:14	6:49
31	5:26	6:34	5:20	6:40

AUG.	Latitude +30°		Latitude +40°	
	MOON-RISE	MOON-SET	MOON-RISE	MOON-SET
1	4:28	2:12	4:53	1:48
3	6:24	4:09	6:47	3:44
5	8:03	6:24	8:18	6:07
7	9:27	8:41	9:31	8:36
9	10:45	10:52	10:37	10:58
11	...	12:56	11:48	1:14
13	12:50	2:55	12:29	3:19
15	2:28	4:41	2:04	5:06
17	4:15	6:10	3:53	6:29
19	6:02	7:23	5:48	7:35
21	7:47	8:26	7:43	8:29
23	9:32	9:28	9:36	9:23
25	11:19	10:37	11:33	10:22
27	1:13	...	1:35	11:39
29	3:12	12:52	3:36	12:27
31	5:01	2:53	5:23	2:29

To obtain local times of sunrise and sunset: for longitudes other than the standard time meridians (i.e., 75°, 90°, 105°, and 120°, for Eastern, Central, Mountain, and Pacific Standard Time), decrease the time four minutes for each degree east of standard meridian, or increase the time four minutes for each degree west of the standard meridian.

- 1—Tu.—1833, Sailors' Saug Harbor, N.Y., dedicated.
- 2—W.—1923, death of President Harding.
- 3—Th.—1914, Germany declared war on France, Belgium.
- 4—Fr.—☺ **Full Moon, 7:39 A.M., E. S.T.**
1869, \$3,500,000 whiskey store fire, Phila.
- 5—Sa.—**Fire Association Group companies adjust all claims, big or little, with equal promptness.**
- 6—Su.—1930, disappearance of Judge Crater.
- 7—M.—1942, U.S. attack on Guadalcanal began.
- 8—Tu.—1588, Spanish Armada destroyed by the English.
- 9—W.—1642, Harvard's first commencement.
- 10—Th.—☾ **Last Quarter, 9:52 P.M., E. S.T.**
- 11—Fr.—☾ **Property insurance rates are the lowest ever!**
- 12—Sa.—1919, Senator Lodge condemned League Covenant
- 13—Su.—1818, birth of Lucy Stone, noted reformer.
- 14—M.—1880, Cologne Cathedral completed, begun 1248.
- 15—Tu.—1769, Napoleon Bonaparte born.
- 16—W.—1914, British Exp. Force landed in France.
- 17—Th.—1896, gold discovered in Klondike Valley.
- 18—Fr.—☾ **New Moon, 3:25 P.M., E. S.T.**
- 19—Sa.—☾ 1943, fire and explosion caused \$2,000,000 damage in Kearney, N. J., linoleum plant.
- 20—Su.—**Have your agent explain how you can protect against explosion, windstorm and other perils.**
- 21—M.—1858, Lincoln-Douglas debates began.
- 22—Tu.—1851, America won yachting regatta, Cowes, Eng.
- 23—W.—1927, execution of Sacco and Vanzetti.
- 24—Th.—1572, massacre of Huguenots, Paris, France.
- 25—Fr.—1850, Edgar Wilson (Bill) Nye, humorist, born.
- 26—Sa.—☾ **First Quarter, 6:39 P.M., E. S.T.**
- 27—Su.—☾ 1576, death of Titian, Venetian painter.
- 28—M.—1609, Henry Hudson entered Delaware Bay.
- 29—Tu.—1862, second Battle of Bull Run.
- 30—W.—1871, completion of Capitol, Carson City, Nev.
- 31—Th.—1943, Red Army within 50 miles of Smolensk.

OBSERVATION for August: Replacement costs are so much higher today than they were in prewar years that it is really dangerous to assume your property insurance is adequate until you have your policies reviewed by an expert...

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(Continued from page 26)

supplies, taking hostages to control the population. Our former practice was to pick a likely officer for civilian affairs as the occasion arose. This is the first war where officers and men have been selected in advance because of their aptitude and specially trained for the job. Also, it is the first time that nations have joined forces for such administration.

The ACC officer or man must be physically able to stand the gaff like any soldier in the field. AMG has had its casualties in dead and wounded like any combat division. ACC men who follow the fighting waves may not know the strategy of operations but they must realize army needs and, above all, know the ways of the foreign country; know how to build and operate a city and how to handle men.

The varied demands on an AMG or ACC unit in the field are indicated by the special courses in the Charlottesville training school. Individual members are trained to handle the tasks which a unit must face:

1. Civic and business administration.
2. Public works, utilities and housing.
3. Public safety.
4. Agriculture, industry and commerce, including labor relations and price control.
5. Finances and taxation.
6. Civilian supply distribution.
7. Public welfare and health.
8. Communications.
9. Jurisprudence.

Among American officers of ACC are

former governors of New York and Maine, an attorney general of Rhode Island, a supreme court judge of Ohio, an assistant surgeon general of the United States, several college presidents, a former ambassador, the assistant to a president of the United States Chamber of Commerce, mayors and members of Congress, lawyers, bankers, businessmen, labor leaders, journalists, chiefs of police and almost every known profession or occupation.

Their top authority is the theater commander who, in turn, is under the Combined Chiefs of Staff in Washington.

Civil affairs on the staff

IN Italy the Allied Control Commission, the next step from the Combined Committee in Washington, also includes representatives of the Soviet Union, France and Greece. General Eisenhower holds Civil Affairs of such importance that it is designated as G-5, an addition to the other four general staff sections of the Army. In Italy, ACC has AMG commands with the 5th and 8th armies and ACC sections in the seven administrative districts into which liberated Italy is divided.

AMG may be called the shock division of ACC. Functioning in active theaters of operations, AMG's first task is to aid in those operations, relieving combat troops of responsibility for civilian populations, obtaining their cooperation and suppressing hostile elements. Though areas where other units of ACC have succeeded AMG are no longer combat theaters, the same obligations continue but more attention can be given to establishing local and national govern-

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SIGNAL CORPS PHOTO

Soon after AMG reached Caltanissetta, Sicily, Italian prisoners were set to work clearing away the rubble of war

ment and economy on a permanent basis.

AMG, arriving in the confusion of battle, must work fast to get things started and select local officials. The latter register the unemployed, provide workers for the allied armies or for their own rebuilding, arrange for the sale of supplies, distribute the ration coupons, dole out relief, enforce the laws, hold court and oversee other municipal activities. AMG, and later ACC, supervise and serve as the final court of appeal.

All this is paid for in allied currency, supplied by ACC.

Since operations overseas, our Treasury has printed currency in all colors of the rainbow. It is necessary for several reasons. The first innovation was what the Treasury designates as "spearhead" currency. This is the ordinary silver certificate or federal reserve note which, instead of the blue or green seal, has a yellow seal for circulation in Africa or a brown seal with "Hawaii" on both sides for use in the Pacific. The change was to prevent the enemy from smuggling money seized in occupied countries into the United States.

As distinctive currencies as well as postage stamps would be needed for Europe, secret conferences between the British and our Treasury, State, War and Navy departments started in March, 1943. These currencies, already being used in Italy and France, are of two types, differing between occupied and liberated allied countries. All was printed in Washington. This was the first allied monetary venture and is unprecedented for the United States and the largest and most secret printing job the Treasury ever filled.

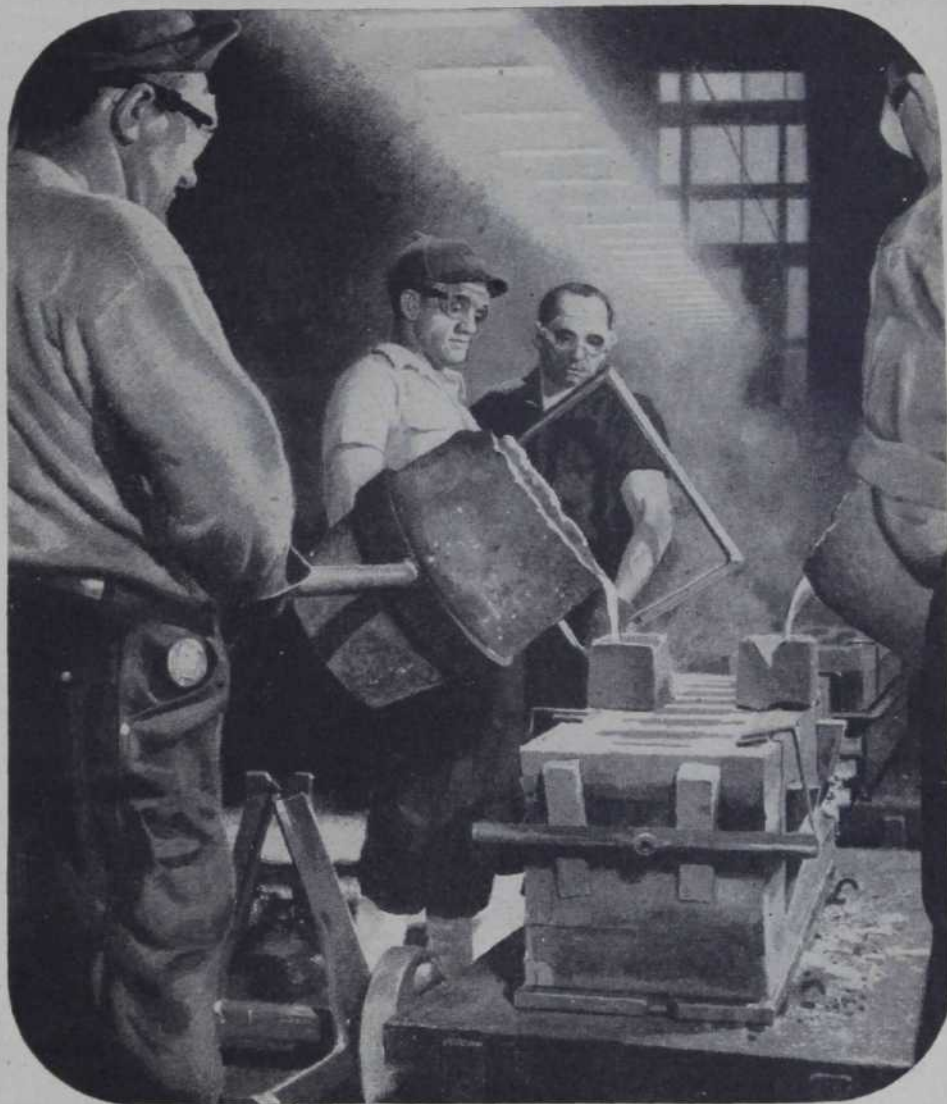
Occupation currency

WHAT is officially known as Allied Military Currency, but may be called "occupation" currency, is of uniform design for possible use in any Axis country. Immense stocks were printed with "Allied Military Currency" and "Series 1943" in English. They are in eight denominations, the four larger the same size as American notes and in blue, lavender, green and black; the lower denominations, half that size but in the same colors. Spaces are left blank for the name of the country where it will circulate and the designation of the currency.

The flash that Italy was being invaded came the night of July 9. The War Department authorized printing on July 13, and four days later, seven tons with "lira" or "lire" and "Issued in Italy" inserted in the blank spaces had rolled from the presses, a load for two transport planes.

The other type, officially Supplemental Currency, but popularly "liberation" currency, is of more artistic design, engraved in the language of the country where it is to be used. The denominations now being used in France are in green, blue, carmine and red with the Tricolor on the reverse and "Emission en

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France" and "Sériede 1944" with the denomination in francs in large figures. This is the type for Norway, Belgium, Holland and other allied countries.

These currencies have been criticized, largely because few have a clear idea of their need. They fill in the shortages in local currency, isolate paper money issued by the enemy and keep allied records straight. A fixed rate is established at 100 "occupation lire" or 49,566 "liberation francs" for a dollar and 400 lire or 200 francs for a pound sterling. Appropriate rates will be fixed for other countries, the currency circulating only in the country where issued and neither American, British or other Allies using their national currency in that country.

How these currencies get into circulation and how they may be ultimately redeemed is simple.

All allied soldiers are paid and all allied payments for services or supplies are made in these currencies. A soldier can return any portion of his pay to an army paymaster and receive credit for it in his home country or, if he is returning, actual cash. Treasury figures show that only 16.3 per cent of the American army pay roll has remained in Italy. In England, the latest figures were 25 per cent.

More of this currency is issued through AMG or ACC to government representatives in the country. While ACC may see to it that schools are reopened, that the local editor gets paper, that the population is fed and clothed, that everybody gets six ounces of soap a month, that ten per cent of the utilities in cities of 200,000 are restored, and that there are five gallons of water per day for everyone in a city of 15,000, the country is expected to pay for it in the final accounting, even though ACC has generously issued "occupation" or "liberation" currency to local officials to pay their current expenses.

Redeemed after the war

THE balancing of accounts will come at the Peace Conference, but the book-keeping can be foreseen now. When a stable government is established, the country will redeem these currencies in its own currency. That country then will have all the paper. The country naturally will be responsible for the military currency used for its own expenses, the same as if it had used its own currency in the first place. The books will show the amounts which each army has used for its own needs. The Peace Conference's decision on reparations and the cost of armies of occupation or liberation and of relief supplies will determine what amount, if any, of this currency used by allied armies for their own purposes is to be redeemed by the respective governments, or even is sufficient to cover the debt to the Allies which the country has incurred.

*This is additional to \$1,350,000,000, U.S.A.'s share in the expenses of UNRRA, of which \$800,000,000 has been appropriated for this year, NATION'S BUSINESS, June, 1944.

This year's appropriation is for operations in Italy, France and other countries as the war moves on. It contemplates that after ACC has been in a country for six months, the United Nations Relief and Rehabilitation Administration can take over. That is not possible in Italy as UNRRA's agreements do not permit it to enter an ex-enemy country without specific authorization from its own council, representing 44 countries. The Council session where this might have been decided, called for Montreal on June 23, was postponed.

The House Committee was informed that the Civil Affairs expenses of our Army for the preceding year were \$80,000,000. The additional appropriation of \$562,556,900* for the fiscal year starting July 1, 1944, is scattered through various army services, as follows:

Signal Corps

Telephone and Telegraph Communications \$ 1,100,000

Medical Corps

Medical Supplies 16,284,685

Engineer Corps

Repair of Utilities 24,062,500
Water purification 678,530

Transportation

Rail and Inland Waterways 25,670,643

Ordnance

Trucks, etc. 16,568,200

Quartermaster Corps

Food 336,107,068
Soap 4,851,242
Coal 10,062,500
Petroleum products 30,693,398
Clothing, textiles and shoes 94,443,134
Sanitary supplies 2,035,000

Total \$562,556,900

These items in the Army Appropriation Bill show ACC's diversified activities. Food is by far the largest and most urgent necessity. Food is not abundant in Italy but health has improved. Retreating Fascist and Nazi forces stripped the country, supply routes stretch for thousands of miles across the Mediterranean and Atlantic and the allied armies have first claim on what does arrive.

Conditions are improving. The flour ration of 100 grams in Sicily and southern Italy has increased to 300, but the peacetime normal is 500. This year's crops will help, but supplies from abroad will be needed for many months.

ACC hopes that it will not be called on to supply more than five per cent of Italy's needs in the next six months. It is too early to estimate Rome's problem though there has been little damage to the city. Unemployment is not yet a problem with army and reconstruction demands. The amount of civilian supplies already shipped to Italy and Sicily is amazing. The War department, at the request of NATION'S BUSINESS tabulated the principal items (in tons) to May 31, as follows:

Wheat and flour	649,600
Dried beans, peas, soup, milk, meat, cheese and sugar	127,680
Medical supplies	2,016
Soap and sanitation supplies	13,664
Fertilizers	5,600



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Right now much of our cellophane is at war—and that means less for civilian use. But the developments Sylvania is making today will result in many more uses for cellophane—this better cellophane—in the postwar tomorrow.

SYLVANIA CELLOPHANE

SYLVANIA INDUSTRIAL CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 122 E. 42nd St., New York 17, N. Y. ★ Works and Principal Office: Fredericksburg, Va.



• Reg. Trade Mark

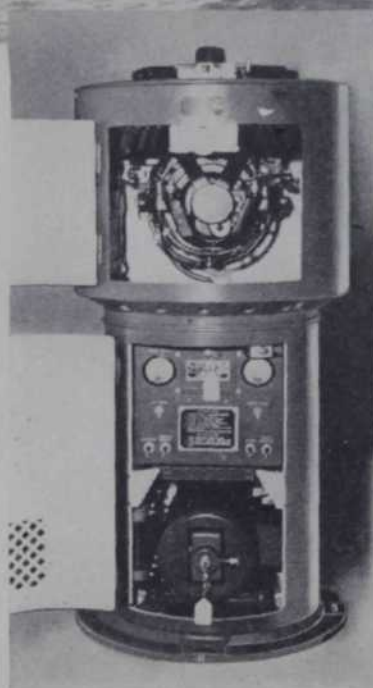
A SECRET WEAPON

that plays a vital role in

INVASION LANDINGS



Many of the landing craft in the Normandy invasion were equipped with the new lightweight Gyrocompass made by Package Machinery Co.



SPLIT-SECOND invasion time-tables call for unflinching accuracy in beach-head landings by our invasion craft... The secret weapon that makes this possible has recently been revealed by the U. S. Navy... It's a new lightweight gyrocompass only 19 inches in diameter, made by the Sperry Gyroscope Company and the Package Machinery Company.

Foreseeing the need for such an instrument, Naval authorities drew up specifications for it back in 1940. In record time, Sperry engineers produced a successful model—the Mark XVIII.

Non-magnetic and unaffected by electrical machinery, this compass *points true north*. It is a marvel of compactness, everything being contained in the binnacle except the voltage regulator and repeaters. And it has the traditional sturdiness of everything pertaining to the Navy.

Today hundreds of Mark XVIII compasses built by us are in service, and we have many more in production. We of the Package Machinery Company take deep satisfaction in being able to carry on this important work, as well as the building of various types of armament machinery and packaging machinery now serving many branches of our combat forces.



PACKAGE MACHINERY COMPANY
Springfield 7, Massachusetts

NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Coal and petroleum	*
Clothing	2,240
Seeds, matches, newsprint, roofing, machinery, etc.	56,000
Total—Tons	856,800

*Allocated by the theater commander and the share for civilian relief not yet reported.

Salvaged American army uniforms and shoes account for a considerable portion of the clothing item, according to Maj. Gen. Lucius D. Clay, director of materiel.

With food hoarding, black markets, high prices and other violations, not unknown even in the United States, Italy is in a mess, as France and other countries of Europe will be. War's aftermath always is messy. AMG or ACC did not make the mess, only inherited it, but is often criticized for not having the magic to bring civic perfection as soon as the order "Cease Firing!" is given.

The millions must be given work to feed and clothe themselves, supplies must be brought in, little shops must open with goods on their shelves, wheels must turn again in mills and factories, wreckage must be cleared away and rebuilt, sanitation and health must be cared for, and while providing these material needs, a new and radically different form of government must be set up, economic structures from finance to production and labor reformed on democratic lines.

More important, the primary purpose of ACC is to help allied military operations. Reports of the generals in command of such operations of the various fronts to their superiors in Washington and London prove that ACC is accomplishing that task.

Liners in the Air

SPEED and economy are indicated for postwar aviation according to plans of The Glenn L. Martin Company, Baltimore, to produce modifications of the giant Mars. Twenty of these flying boats are now in production for the Navy.

Postwar commercial versions will make a cargo transport which can be operated for ten cents a ton-mile, or a luxury liner with accommodations for 80. A combination "tramp steamer" version is also being planned with provisions for both passengers and cargo.

These giant flying boats will bring overocean aerial transportation within the range of the average American's pocketbook. They will also greatly facilitate the distribution of perishable foods and similar commodities. Frosted foods, the Martin Company says, can be carried at less cost in such airplanes than on the ground since the high altitude at which the airplane flies eliminates the need for mechanical refrigeration.

The all-cargo version of the Mars will carry a 15 to 20 ton payload on flights of 2,500 miles or more in slightly more than 12 hours.

Indians in Blueprint

WAY DOWN south in Georgia, Lee S. Trimble is hunting for a tribe of Creek Indians to hire after the war.

There's nothing fantastic in Mr. Trimble's efforts. They tie in directly with the city of Macon's blueprint for postwar progress—a blueprint in swing time.

Mr. Trimble is a hard-headed business man, an ex-banker, now executive vice president and manager of the Macon Chamber of Commerce. He realizes that Macon, to which war brought a turbulent growth, has let itself in for a complexity of postwar problems.

War caused a boom in Macon's housing, a huge influx of labor, a disruption of the city's routine. War has nearly doubled the prewar population of 52,000. It has increased Macon's dwelling units by approximately one-fourth. It has swollen the city's pay rolls from \$1,000,000 to an estimated \$5,000,000 a month.

War has brought to the area four major defense units.

In the postwar period Macon will have an available labor force of above 65,000 compared with 37,614 in 1940. Less than a year ago Macon was anticipating major headaches to come. Today optimism is running high because Macon now has a blueprint for progress.

Indians for the tourists

MR. TRIMBLE'S search for the Creek Indian tribe fits into the blueprint. For one thing, Macon is looking for postwar tourist trade. Ocmulgee National Park seems to be the answer. Here the National Park Service has built a huge museum which already attracts thousands. Mr. Trimble's Creek tribe would live on a reservation at the park as an added attraction for the tourists.

But the Creeks play a minor role in Macon's plans. Months ago, Macon undertook and has now completed what is believed to be the first introspective analysis of its kind in the country.

Briefly, here is what Macon did:

The Chamber of Commerce contracted with the Georgia State Engineering Experiment Station at the Georgia School of Technology for a complete economic survey of the Macon area of 26 counties. This survey lists economic assets and points the way to sound and logical future development.

Based on the survey, the Macon area today sees these possibilities:

Establishment of a tire industry because of the availability of suitable kaolin as a filler and the fact that tire cord centers are situated in Georgia, and both natural and synthetic rubber are accessible to this area.

Establishment of glass industries, including a bottle plant, and the manufacture of light bulbs, radio tubes, glass in-



● "That fire would have ruined me as completely as it did my plant, if it hadn't been for my insurance agent. He recognized the steadily rising value of my property and equipment and only recently made a new survey, resulting in coverage from many angles that never occurred to me. Thanks to his intelligent services, I was able to meet my regular payroll, hold my men, and also cover production losses during the period of shutdown. The prompt service of the United States Fire Insurance Company's adjusters permitted me to take over this new location, and we are operating again—will soon be back to peak production. Now I know the value of a good insurance agent backed by a high grade company. It certainly pays to review insurance requirements with insurance people."

120 years of fair dealing by the Agents, Adjusters and Personnel of the United States Fire Insurance Company has made loyal friends of many policyholders and claimants.



FACT OR FICTION?

A 47-second test on
FAMOUS DAMS
on the
Main Street of the Northwest



Q. Cement in Grand Coulee could make enough concrete to build another Great Pyramid. Fact or fiction?

A. Fact. It could reproduce this wonder of the world 3 times! All cement for the dam moved over N. P. rails.



Q. Grand Coulee and Bonneville dams are helping shift U. S. "center of gravity". Fact or fiction?

A. Fact—in terms of industry and population. Abundant low cost power is one of many factors moving industry west.



Q. Secret mines, discovered near dam sites, now produce huge amounts of aluminum, magnesium. Fact or fiction?

A. Fiction. Not mines, but low cost electricity, helped attract new light-metal plants to "Main Street".



Q. A 49th U. S. state is proposed, to embrace Grand Coulee. Fact or fiction?

A. Fiction. But arid lands made to bloom by water from the dam will be 1875 square miles—50% larger than Rhode Island. N. P. will serve them.



Q. Today, post-war planners are shopping on Main Street. Fact or fiction?

A. Fact. Many "bargains", including ample power from dams, await industry in new locations on Northern Pacific's "Main Street of The Northwest".



NORTHERN PACIFIC

MAIN STREET OF THE NORTHWEST

sulators, glass brick and of flat glass.

Construction of a newsprint plant (a bid for one already has been made).

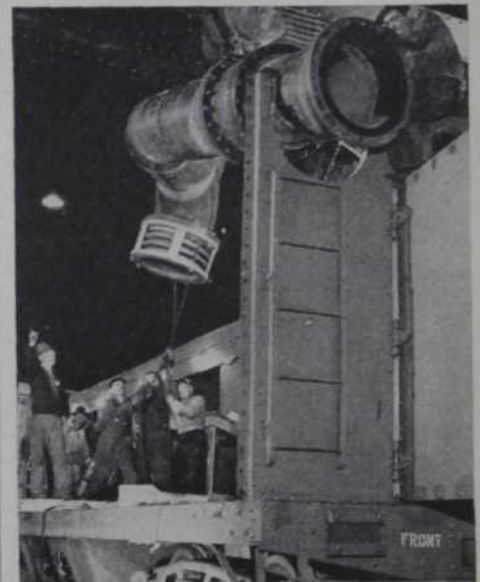
Production of rock wool and insulating brick in view of the availability of fuller's earth.

Establishment of manufacturing enterprises utilizing the area's limestone.

Concisely, the survey tells the Macon area of inducements to new industries, suggests types of manufacture which the area has not heretofore considered, gives the local chamber factual data, and has injected a new confidence in the entire area.

The plan had its inception when the local chamber of commerce called a mass meeting of Macon citizens who voted without dissent to raise a \$100,000 "prosperity fund" to help the area obtain postwar industrial advancement.

With the results of the survey at hand, Macon already has begun a "selling job." These efforts are beginning to bear fruit. Half a dozen or more concerns have agreed to conduct their own surveys to determine the feasibility of opening businesses. —JOHN MEBANE



Electricity on Wheels

To restore electricity quickly to cities reconquered from the Axis by the United Nations armies, Westinghouse is building trains which will effectively take the place of wrecked central power stations until they can be rebuilt.

The photo shows the steam line—large enough for a man to crawl through—being hoisted into place on the turbo-generator car of a 5,000 kilowatt power train. This pipe will carry exhaust steam from the windmill-like turbine to the condensers which convert the used steam back into water so it can be pumped into the boilers again.

In addition to a number of 5,000 kilowatt trains, more than 20 three-car power trains capable of generating 1,000 kilowatts are being built.

Capital Scenes... and



What's Behind Them

No freeze for surpluses

IT IS worth noting that Will L. Clayton, Surplus Property Administrator, keeper of the biggest store the world has ever known, with \$50,000,000,000 worth of goods on his shelves and 137,000,000 persons ready to give him the hummingbird if he makes a mistake, is not alarmed by the future. Except, maybe, that after a year or so spent in finding ourselves after peace comes, the father of all booms will sweep us off our national feet.

"Maybe not. After our 1929 experience we should know better."

He does not fear that Congress will freeze the war surplus goods out of a perfectly laudable wish to aid American industry back into production. Some of the things on his shelves will be needed at once and he sees no reason why the consumer should not get them as soon as the War and Navy departments can release them. There should be no repetition of the scandalous give-aways which followed the First War.

A man who knows how

THE Surplus Property Administration directs the seven agencies which are now selling the surplus goods—except those controlled by the Army and Navy. It is certain as taxes that sniping at the SPA will begin with the Armistice.

One thing should be noted. Before the SPA is criticized for a loss—say on the sale of a factory—it might be worth while to find out whether the loss was real. If the buyer made too much of a profit either it will be scooped up by the renegotiation process or by the tax collector. Clayton is a good deal of a philosopher. A man who spent the better part of his life handling the world's largest cotton business, which is the one perfect explosive, will not lose much sleep because of criticism.

The iron in our souls

WHEN we got into this war, a staff officer said:

"We'll not be really in earnest until the casualty list touches 300,000. Then we'll get going. We're a tough people."

We've lost 300,000 men in killed, wounded, prisoners and missing. The staff officer has just returned from



two years in the Pacific. He says he can see the difference in us:

"Our soldiers fight best after they have seen their dead. Same with the people at home. When I left we were talking of doing good and reforming the world and putting sweeter books in German kindergartens. Now the only thing we talk about is winning the war."

Two more years of it

HE THINKS—he presumably reflects staff thinking—that Germany may last through to 1945. The War Department is asking for more tanks, more big guns, more half tracks, more trucks:

"That does not look like a quick finish."

The Germans have been getting a tremendous trouncing. In an ordinary war the staff would expect them to ask for terms. That would be ordinary business prudence: "Cut your losses."

This isn't an ordinary war. The staff thinks the allied armies may be compelled to protect the German people from the hatred of the millions who have been robbed and ruined and who still smell the blood of their kin. He thinks the German army chiefs will fight on in the hope that the cost to both sides will be so heavy the Allies will end the war out of mercy. On conditions, of course.

The flaw in that reasoning is that a point may be reached when the Germans can't take any more. The hammering is getting louder and heavier.

More war business ahead

The Army Staff—and the Combined Chiefs of Staff—do not worry much about the business end of the war. They determine what they must have and ask for it. They really have not had much friction with the producing agencies:

"Only the misunderstandings unavoidable in the situation and the growls of overtired men."

In a general way, however, the staff thinks the year ahead will demand at least as much war goods as the year past. There will be changes in certain lines, of course. Fashion shifts rapidly in war.

Tough year ahead

THE ARMY doesn't particularly care about what may happen to civilians, he said.

None of the Army's business, except

that the trivial pangs the rest of us suffer may interfere with the Army. Not cold-heartedness, he said. Merely that the Army is a concern of one idea, and there are other mechanisms to worry over civilians.

"But I think there may be a shortage of food and knick-knacks in 1944-45. The farther we go—this includes the Navy—and the more we put out the more must be taken from the folks at home.

"My guess is plenty of business, no unemployment except as resulting from fumbles or enforced shifts in patterns, a little more goods for civilians but not at the expense of the war business, higher prices all around."

Fact is, he said, we Americans have never known our own strength. We've thought we were bragging. We have been ridiculously inarticulate. We could go on at the present rate for another five years.

Mass production of death

THE STAFF officer observed that in war we have followed precisely the line that has made our business men so successful. Look back through history, he said, and you will find that it is the American way in war and peace:

"Power. Coordination. Speed."

We haven't frittered, he said. We held back at first because we didn't have the stuff. When we got it we poured it on. Staff officers returned from France told him that the volume of our artillery fire is heart-shaking.

Same way in business at home. Armour, Swift, Ford, Chrysler, steel, copper, all lines. Production lines set up. Supply veins filled. Each part nicking with every other part.



About those money talks

WHICH gives rise to an uncertainty about whatever may be the result of the international money talks which have been held in the delightful surroundings of Bretton Woods. Representatives of all the friendly nations attended—or practically all. Whatever agreements may be reached now or in the future are either (a) treaties, and subject to Senate ratification, or (b) executive agreements.

"Suppose," said two well informed Senators, one a Republican and the other a Democrat, "that the House and Senate ratify a treaty by which we put up about twice as much gold as the next most solvent nation—which would be Great Britain—and which would be the metallic backing for the currency of certain small nations."

That two-thirds rule

THERE is one solid fact about the Constitution. It cannot be amended except by popular vote. It may be evaded or

We're Coming to



Santa Clara County

During the past 90 days a nationally known pipe manufacturer purchased a factory in Santa Clara County . . . and letters, wires and personal calls have been received from a glove manufacturer, a shoe concern, a steel structural factory and a furniture manufacturer, all interested in immediate factory locations.

OVER 1200 INQUIRIES

These are but a few of the more than 1200 inquiries received by this young, aggressive manufacturing area.

ABUNDANCE OF LAND

There is an abundance of available land for industry in Santa Clara County, at the population center of the Pacific Coast. But the far-sighted manufacturer is selecting his location now, instead of waiting for the post-war rush.

EVERY ADVANTAGE

Find out how the many advantages of Santa Clara County will benefit your business. Write on your business letterhead for "Post War Pacific Coast" . . . the story of Santa Clara County. There is no cost or obligation.



DEPT. N

SAN JOSE CHAMBER OF COMMERCE
SAN JOSE, CALIF.

SANTA CLARA COUNTY *California*



The population center of the Pacific Coast

defied or disregarded but, until the people vote, it is there to stay. The Constitution says that treaties must be ratified by a two-thirds vote of the Senate. It's just too bad about the House. Member Sol Bloom—

An aside about Sol. He has plenty of stuff. He practically established a protectorate over George Washington, and he is familiar with most of the subjects in the encyclopedia. In parliamentary discussions he can either kiss or kick shins. Apart from his excellent qualities he is the most amusing man in the House.

His stories of the Chicago World's Fair and his kootchy dancer should be preserved for posterity—

Anyhow, Member Bloom wants the House to share in the Senate's monopoly of treaty ratification. The Senate won't share. The House may at some future time be able to club the Senate into ratifying to suit the House. But the constitutional rule will not be abated.

Foxholes for Senators

WHERE, asked the worried Senators, could the Senate go in the event that some of these small nations, being overcome by a rush of gold to their exchequers, should begin to print money regardless? Some of the paper money of some of the small nations has not in the past been worth pasting on chicken-house doors.



Suppose that our own finances should get tangled up with some of that kind of paper money? Then remember that one-third of the Senate must face the ballots of the populace every second year, so that no Senator could be certain of immunity.

The Senate feels safer against the blandishments of world planners when only Senators have the power to act on these blandishments and 72 of them must agree.

Mudhole to a metropolis

THE STAFF officer knows that we are not only unstoppable but that we will lick the postwar problems at the same speed because of something he saw in the Pacific area.

"We had to have a supply depot at a certain place. The place was deep mud flavored with snakes, bugs, and malaria. Utterly impossible. The idea was fantastic and preposterous."

The Engineers and the Seabees moved in with their machines. No confusion. Each man knew his job. Other men stepped into his shoes. Ships put their cargoes on the shore just as required. Every nut or bolt or stanchion in its proper order.

Malaria was controlled. The men were



eating ice cream at supper two days after the first landing. A people, he said, who can do that can do anything. It was, he said with an accent of reverence, the damndest thing he had ever seen.

Government travel cut

IT WILL be no news to those who can observe Col. J. Monroe Johnson at close hand that the gentleman seethes easily. His temperature on occasion goes up like a rocket bomb. At the moment of writing he might be described as unrestful.

He is the chief of Defense Transportation. Took Joseph Eastman's place:

"I warned 'em," he said in effect, "to stay off the trains—"

So now he has notified all government agencies that they must cut down on their train travel. Or else. Col. Johnson is a soldier, with a low melting point and resonant echoes and he thinks he has the veto power and that he actually can stop the transportation of movie stars, ladies whose histrionic capacities are obscured by their lovely legs, and officials who find the Washington summer climate cloying. He means it, and, D. V., he'll go through with it if he can.



But this is a democracy

BUT there is an election going on this year. And there are 25 special investigations being carried on by standing committees of the Senate, 16 by standing committees of the House, 12 by Senate special committees and 10 by special House committees. And there must be more or less traveling by the 68 committees, preferably in parlor cars equipped with iceboxes. And what, from any angle, will Col. Johnson do about that?

No place for emotion

THE STATE Department—and some part of the Senate—feels that our relations with France should not be tinged with too much sentiment:

"Americans sympathize with and admire the French people. But it is the business of a government to protect its national interests against present or future contingencies—"

The position of de Gaulle seems to be about the same. He tried to play off the United States against Britain in their current differences.

Britain will need her across-the-Channel neighbor as a postwar partner. We can get along with only the customary friendly relations. No necessity for heart throbs.

Herbert Cowley

"LET ME TELL YOU HOW IT WAS..."

"It was a nightmare.

"They came in wave after wave. And their bullets splattered like rain on our deck, and the big guns sounded like doors being slammed in a hall in the sky and the pounding of A. A. guns was like guys pounding to get out again, and over it all the high, thin scream of the bombs.

"We thought for a minute they had us . . . we thought maybe our number was up . . . that we were through, finished, done for . . .

"And then . . . the thunder of our planes came down and shook the world!"

"I tell you, they swarmed in the sky and shut out the light like a cloud . . . planes and more planes than we had ever seen before. They swept down and struck like the vengeance of God, and the enemy fell in clusters of flame, and the air was filled with the sound of their going and the water was littered with planes and men. And they died in the sea.

"That's how it was . . . that's how it was in the Coral Sea . . . that's how it was at Midway . . . that's how it was at Truk . . . that's how we know it will be . . .

"Because out here, we've seen the power of America at war . . .

"And we can see that this same power can be the power to build a new and greater America than we have known before. An America where there will

be new homes . . . new towns . . . new opportunities to work, to dream, to invent . . . to live as free and individual men, the lives we want to live.

"That's how we see it . . .

"That's how it will be . . .

That's how it *must* be when we come home."

After Victory we must convert the full force of America's vast productive capacity to production for peace. For only in this way can Victory be made real . . . only in this way can America continue to grow . . . only in this way can the hopes of all of us be realized.

Today, we're building 2,000 h. p. Pratt & Whitney supercharged aircraft engines for the Navy's Vought Corsair and Grumman Hellcat fighters . . . Hamilton Standard propellers for United Nations bombers . . . readying production lines for Sikorsky helicopters for the Army Air Forces.

But the progress of Nash-Kelvinator before and during the war will not stop when war ends. Every new skill, new method, all our new knowledge will be applied to the building of better automobiles, refrigerators and electrical appliances than have ever been built before.



The Army-Navy "E" awarded to Nash-Kelvinator Corp., Propeller Division.

NASH-KELVINATOR CORPORATION

Kenosha • Milwaukee • DETROIT • Grand Rapids • Lansing



Eric Lutz

NASH N-K KELVINATOR



BACK THE ATTACK WITH WAR BONDS—BUY MORE THAN BEFORE

OLD TAYLOR

The Master's Choice

No one knew better than did the late Col. E. H. Taylor, Jr. what qualities make a whiskey truly great.

For he was a master distiller who created many noble whiskeys.

So when he selected one—a matchless bourbon of rare flavor and bouquet—to bear his name, you may be sure it was the master's choice.

OLD TAYLOR—now as then—is the choice of those who relish bourbon at its best.



OLD TAYLOR was first made in 1887 in the fine old distillery pictured here—and at no time since then has a single drop of any other whiskey come from this distillery.

National Distillers Products Corporation
New York



Signed
**SEALED and
DELICIOUS**